Complete Abstract Listing 2014

This page lists all abstracts for the 2014 BOPSS Meeting (it's a long page so may take a while to load)

Oral presentations on Thursday

Abstract Number: 101

Orbito palpebral Plexiform Neurofibromatosis - A Classification system based on 55 consecutive cases

Author: **Christopher Abela**

rapid fire presentation

Purpose:

The pattern of presentation in orbito-temporal type 1 neurofibromatosis is variable, ranging from cutaneous palpebral disease to orbital displacement and in the extreme: destruction of the cranial base. Surgeons have historically adopted a conservative strategy, waiting watchfully through puberty on the anecdotal premise that surgery during this period elicits pathergy. It is our unit's philosophy that left untreated, only progressive infiltration, distortion and dysfunction of structures occurs, ultimately making reconstruction more difficult and outcomes worse.

Methods:

A retrospective review was conducted to test our hypothesis. 55 consecutive patients who had undergone surgery for large craniofacial neurofibromatosis over a 13 year period were reviewed; looking at severity of aesthetic and functional presentation, timing and type of interventions, outcomes and complications.

Results:

The majority had soft tissue deformity without bony involvement. Rarely was disease bilateral. Patterning was mostly seen in trigeminal nerve territories. 25 patients had specific orbito-temporal variants. The spectrum of involvement is wide but there seemed to be a heirarchy of pathology, whereby as the cases became more severe, the disease pattern progressed more posterior. Sphenoid wing dystrophia was rarely seen and always on the same side as the pathology. Secondary effects on related structures such as facial nerve, airway and the ear canal, were all a function of tissue bulk.

Conclusion:

Patterning of presentation facilitates communication and guides our strategies for measuring clinical outcome. We advocate early surgical intervention and radical resection under the care of a specialist multidisciplinary team.

Abstract Number: 102

Appearance concern and social avoidance in patients with thyroid eye disease: A cross-sectional study

Author: **Sadie Wickwar**

rapid fire presentation

Purpose:

Patients with TED report feeling socially isolated due to their appearance (Terwee et al, 2002). Although TED severity is expected to be associated with appearance concern and social avoidance, recent studies do not support this assumption (Moss & Rosser, 2012). Thus this study has examined the relationship between TED severity and social avoidance

Methods:

Forty nine adults with TED (36 females) were assessed for severity of exophthalmos, clinical activity (CAS) and duration, the Derriford Appearance Scale (DAS24), and the Graves Ophthalmology Quality of Life questionnaire (GO-QOL). Correlations identified any relationships between clinical factors and demographic factors, and social avoidance. Regression models identified whether social avoidance predicted QoL

Results:

Participants had a median age of 45 (range 23 – 79) and median disease duration of 2.5 years (range 0.3 – 18). There were no significant differences between men and women in DAS24 scores. Men had a mean score of 48; 11 points higher than the male general population; 8 points higher than men with disfigurements to the head and neck (HN) region. Women scored on average 51; 19 points higher than the female general population; 9 points higher than women with disfigurements to the HN region. No statistically significant correlations were found between DAS24 scores and age, proptosis, activity, or duration. DAS24 scores explained 72% of the variance in GO-QOL psychosocial scores ($p<0.001$)

Conclusion:

Men and women with TED reported levels of appearance concern and social avoidance higher than other populations and these psychological factors were not related to clinical or demographic factors. Social avoidance significantly predicted QoL

Abstract Number: 103

Risk of retinopathy after radiation treatment for orbital disease- a case series

Author: **Aneesa Nazreen Rahim**

rapid fire presentation

Purpose:

Radiation retinopathy is a potential long-term complication of radiation therapy to the orbit. The aim of this study was to identify the risk of developing radiation retinopathy following radiotherapy.

Methods:

A retrospective review of 9 patients who developed radiation retionopathy following external beam radiation therapy for orbital diseases

Results:

There were 6 males and 3 female patients. Age of onset ranged from 40 years to 75 years with a mean age of 57

years. We had 6 patients with lymphoma, 1 with optic nerve meningioma, 1 with schwannoma and 1 with thyroid orbitopathy. Patients received external beam radiation therapy at doses between 30 and 40Gy with 15 to 20 fractions. 5 patients with radiation retinopathy had comorbidity (diabetes mellitus type 2), of which only one patient had background diabetic retinopathy before developing radiation retinopathy. The mean time between radiation and development of retinopathy was 24 months ranging from 8 months to 53 months. Visual acuity ranged from hand movements to 6/9.The other ocular complication of radiotherapy included dry eyes (10 eyes), cataract (8), optic neuropathy (2) and nasolacrimal duct obstruction (1). 2 patients had mouth ulcers following radiotherapy. There was no recurrence of lymphoma in any patients. 4 patients developed proliferative changes of which 3 patients had diabetes mellitus. 2 patients with proliferative changes received pan retinal photocoagulation, 1patient required pars plana vitrectomy and other patient refused treatment. The mean follow up was 54 months.

Conclusion:

Radiation retinopathy is a well-known complication of radiotherapy for orbital tumors, however risk is higher if associated with vascular comorbidities. Excellent local control can be achieved with radiation doses of 20 Gy to 35 Gy. Higher doses may result in an increased risk of complications.

Abstract Number: 104

Pressure induces adipogenesis in orbital fibroblasts: New insights into the aetiology of Thyroid Eye Disease

Author: **Daniel Ezra**

full oral presentation

Purpose:

One of the key pathological processes characterising Thyroid Eye Disease (TED) is the expansion of the orbital fat compartment. Adipogensis of orbital fibroblasts is known to be a key aspect of this process. orbital tissues. Mechanical environment is understood to have significant and far-reaching effects on cell transformation, proliferation and differentiation. We test the hypothesis that increased pressure drives the differentiation of orbital fibroblasts into adipocytes.

Methods:

Cell lines of orbital fibroblasts were derived from 3 TED and 3 control patients. Cells were seeded in free-floating 3D collagen matrices by a process of rapid polymerisation. After integration of the cells within the gel, external pressure was applied using a custom made weight-compression system. Adipogenesis was assessed by cell counting for positive staining with Oil-Red-O and PCR for PPARG.

Results:

TED orbital fibroblasts were found to spontaneously undergo adipogenesis in a 3D culture environment (65% expression) , even without the application of external pressure. the application of external pressure increased the adipogensis response to 85% of cells. Control orbital fibroblasts were found to respond to more dramatically to externally applied pressure by inducing adipocyte differentiation which increased from 20% at baseline to 80% after the application of external pressure. These findings were confirmed by Oil-Red-O staining and PPARG gene expression.

Conclusion:

Orbital fibroblasts respond to external pressure by differentiating into adipocytes. This novel finding may explain the the cause of adipogenesis in thyroid eye disease, which is a predominately inflammatory condition.

Abstract Number: 104

Clinical diagnostic accuracy of neuro-ophthalmic and orbital disease as supported by neuroimaging

Author: **Sarith Makuloluwe**

rapid fire presentation

Purpose:

Diagnostic studies such as computed tomography scans (CT) and magnetic resonance imaging (MRI) are ordered frequently in ophthalmic practice. Few studies have reported their role in confirming clinical suspicion. Our clinical accuracy in diagnosing neuro-ophthalmic and orbital disease was assessed using neuroimaging as a supportive tool.

Methods:

This retrospective study included all patients that had CT scans and/or MR imaging over an 8-month period, identified from our radiological database. Clinical ophthalmic/orbital findings and indication for imaging was correlated with scan results to assess diagnostic accuracy. Imaging results were categorised as relevant (relating to clinical findings), significant other (unrelated to presentation; requiring attention), non-significant other (incidental findings without clinical significance), and normal.

Results:

133 patients were identified, each having CT or MRI imaging. 22 (16.5%) had CT (age range 32 to 92 years, mean 65.6) and 111 (83.5%) had MR (age range 3 to 94 years, mean 54.0). 44/133 scans (33.1%) yielded relevant results to support the clinical findings. 9/133 (6.8%) had significant other pathology, 29/133 (21.8%) had non-significant other findings. A few of these had cross over with their ophthalmic/orbital disease (3 in significant other group, 4 in non-significant other group). 57/133 (42.9%) had normal scans. Relevant findings are tabulated in comparison to clinical impression.

Conclusion:

Using neuroimaging, we demonstrate a high rate of clinical diagnostic accuracy by ophthalmologists. When applied judiciously, these imaging modalities remain an important supportive and diagnostic tool.

Link to PDF ePoster

Abstract Number: 105

Orbital Exenteration: A 5-year Experience at a Specialist Ocular Oncology Unit

Author: **Imran Haq**

rapid fire presentation

Purpose:

Orbital exenteration is an emotionally and physically disfiguring procedure which typically involves removal of the entire contents of the orbit and surrounding periorbita for the treatment of life-threatening malignancies. The Royal Hallamshire Hospital in Sheffield is unique in that it is one of 4 specialist Ocular Oncology units in the UK, and as a result has been prolific in the rates of exenterations carried out when compared to the published literature. In this study the authors aim to review their experience with exenteration, including indications and outcomes.

Methods:

A retrospective study reviewing operating department records via a computerised database to identify all patients

who had undergone exenteration of the orbit from April 2008 to May 2013 inclusive, at the Royal Hallamshire Hospital in Sheffield.

Results:

Over a five year period, 38 patients were identified. The mean age of those having undergone exenterations was 68.1 years. Of these 21 were male and 17 female. 10 different tumours were encountered, the most common of which were melanoma (10), squamous cell carcinoma (SCC) (9) and basal cell carcinoma (5). Of the melanomas there was a 30% mortality rate, and with SCC 55%. All our patients with BCC have survived so far. 32% of our exenterations were lid sparing. 32% of our patients received adjuvant radiotherapy. There was no local recurrence. So far 50% of our patients have survived.

Conclusion:

Malignancy requiring orbital exenteration is a complex disease, requiring specialised and aggressive management from a multidisciplinary team. Exenterations are performed with an increasing frequency at this unit, and unsurprisingly given the nature of the unit, the majority are a result of ocular melanomas referred in from elsewhere. Radical surgery is only part of a wider management for these conditions and the journey for cosmetic rehabilitation is long, with multiple hospital visits for longterm recurrence follow-up, and profound consideration of psychological effects.

Abstract Number: 106

Orbital Solitary Fibrous Tumour - a Case Series

Author: **Anupma Kumar**

rapid fire presentation

Purpose:

To present a case series of patients with orbital solitary fibrous tumour from a tertiary referral centre, focussing on clinical variation, diagnostic dilemmas and management challenges.

Methods:

This is a non-comparative retrospective case series. A database of all orbital tumours treated since 1999 was used to identify orbital solitary fibrous tumour cases. Data collected included patient demographics, clinical presentation, histopathological features, and details of management and clinical outcome.

Results:

We identified 9 cases. There were 2 males and 7 females with a mean age of 41.6 years (range 17 – 83). The mean follow-up period was 39.3 months (range 3-156 months). The presenting symptoms included proptosis(n=6), periocular mass(n=1), foreign body sensation(n=1), and epiphora(n=1).
Integrative sequencing has demonstrated recurrent NAB2-STAT6 gene fusion in solitary fibrous tumour cases and a new STAT6 antibody for immunohistochemistry has been reported to show the presence of a STAT6 genetic mutation. The results of immunohistochemistry with the STAT6 antibody in our cases will be presented.
All cases underwent elective surgical management with complete histopathological clearance confirmed in 6 cases. One patient underwent adjuvant stereotactic radiotherapy.

Conclusion:

This case series demonstrates the variable presentation, new immunohistochemistry features and management challenges associated with orbital solitary fibrous tumours. The surgical management of these cases remains a major challenge.

Abstract Number: 107

Orbital Malignant Triton Tumour

Author: **Aruna Dharmasena**

rapid fire presentation

Purpose:

Malignant Triton Tumour is a very rare soft tissue sarcoma with rhabdomyoblastic differentiation. To our knowledge this tumour has not been reported in the human orbit previously. In this paper we review the published literature on malignant Triton tumour in humans and present a case of orbital Triton Tumour which is the only reported case within the orbit so far.

Methods:

Case Presentation and review of the literature

Results:

A 47 year old male with a longstanding left blind eye due to childhood toxocara infection was referred to our Oculoplastics and Orbital surgery department due to increasing pain thought to be originating from the affected eye over a period of 9 – 10 months prior to presentation. The B-scan and the Computed topography (CT) revealed a large cystic lesion attached to the original globe. He underwent a left enucleation and complete excision of the adjoining cystic mass with a primary orbital implant. The histopathology analysis of the orbital tissues revealed highly malignant spindle cells with marked nuclear atypia. There were frequent mitotic figures as well as focal necrosis suggestive of Triton tumour. He developed an increasing orbital pain and developed rapidly progressive proptosis. The orbital implant was removed and he was treated with chemotherapy and radiotherapy promptly with very good effect. An orbital exenteration was crried out to remove the residual tumour.

Conclusion:

The current treatment protocol of Triton tumour includes immediate surgical resection followed by radiotherapy. Unfortunately in spite of prompt treatment these tumours have a poor prognosis in general. Since this is the first reported case of Triton tumour of the orbit the long-term benefits of radical surgery such as orbital exenteration are still not known.

Abstract Number: 108

Lacrimal sac Lymphoepithelioma-like carcinoma (LELC)

Author: **Aruna Dharmasena**

rapid fire presentation

Purpose:

Lymphoepithelioma (squamous cell carcinoma with a characteristic lymphoid stroma) is a poorly differentiated carcinoma primarily occuring in the nasopharynx. In contrast lymphoepithelioma-like carcinomas (LELC) are malignancies that have morphologic features similar to the nasopharyngeal Lymphoepitheliomas but arise in locations outside of the nasopharynx. LELC is a rare malignancy in the lacrimal drainage system and Only 4 cases have been reported so far. In this paper we discuss another patient with nasolacrimal sac LELC and review the previously reported cases and their treatment options and prognosis.

Methods:

Case report and review of literature

Results:

A 58 year old female presented with a 2 year history of right sided epiphora and a chronic discharge suggestive of lacrimal sac mucocele and chronic dacryocystitis. Nasolacrimal duct system examination revealed an anatomical blockage distal to the common canaliculus. ENT examination was unremarkable. An external dacryocystorhinostomy (DCR)was attempted and a solid tumour within the right lacrimal sac was discovered intra-operatively. The tumour was excised from the lacrimal sac and sent for urgent histopathological analysis which confirmed the diagnosis of lymphoepithelial carcinoma (lymphoepithelioma) of the lacrimal sac. Previously reported cases had shown a good initial response to radiotherapy and taking this into account further treatment with radiotherapy was arranged.

Conclusion:

Given the rarity of ocular adnexal LELC, the optimal therapy is unclear. Previously reported cases have had surgical debunking and radiotherapy with good effect. They have not had primary tumour recurrence (follow up of 12 – 33 months). But one patient has had developed a lymph node metastasis after 6 months.

Abstract Number: 109

Congenital lacrimal fistulae: The results of primary external dacrocystorhinostomy and fistulectomy

Author: **Kamran Saha**

full oral presentation

Purpose:

Congenital lacrimal fistulae are due to abnormal ectodermal invagination in the eyelids after day 35 in human embryogenesis. Leading to a watery eye or ‘cheek’, the true cause of such lacrimal symptoms is frequently overlooked, leading to significant diagnostic delay. We undertook a retrospective study of the management of these fistulae to determine the efficacy of primary external dacrocystorhinostomy and fistulectomy. A successful outcome measure was defined as ‘no further surgery required’ at any time during the follow up period.

Methods:

Retrospective, Non-comparative case series

Results:

There are 20 patients described, of which 16 (80%) were referred from secondary ophthalmic centres. Median age at presentation was 15 years (range 4-31 years) with a male preponderance of 2:1. Presenting complaint was of ‘epiphora’ in 18 cases, and two presented with ‘sticky discharge’. Three patients had syndromic pathology (e.g. Down’s, Hay-Wells syndrome) with the remaining patients having no significant past ocular or medical history. One patient had a fistulectomy alone. All other patients underwent external dacrocystorhinostomy with fistulectomy, with a silicone stent placed in patients over the age of ten. Mean follow-up time was 13 months (range 2-28 months). During this period, no patient developed recurrent lacrimal symptoms requiring further surgery.

Conclusion:

In this study males were more likely to present with symptomatic congenital lacrimal fistulae. Although an embryological abnormality, interestingly these patients typically did not present to this unit until their teenage years. Dacrocystorhinostomy with fistulectomy provides an excellent management option for this malformation.

Abstract Number: 109

SURF Point Detection and KLT analysis of camera control in Endoscopic DCR (EnDCR)

Author: **James Wawrzynski**

rapid fire presentation

Purpose:

Poor camera control during EnDCR surgery can cause inadequate visualisation of the anatomy and suboptimal surgical outcomes. It can be a difficult skill for ophthalmic trainees to master, with few structured training tools available. This study investigates the feasibility of using computer vision tracking in actual EnDCR surgery as a potential formative feedback tool

Methods:

A prospective cohort analysis was undertaken to compare junior (<20 procedures) vs. senior (>100 procedures) surgeons. Speeded-Up Robust Features point detection & Kanade-Lucas-Tomasi tracking were applied to endoscopic video footage from routine EnDCR surgery: Total number of movements and camera path length in pixels were determined for each procedure. An approximate t test was used to test for significant difference at $p<0.05$.

Results:

18 videos from 9 juniors/9 seniors were analysed. Feasibility of our tracking system was demonstrated. Mean camera path lengths were significantly different at 121,422px (juniors) and 45,805px (seniors), $p=0.0008$. Mean number of movements was significantly different at 9143 (juniors) and 3840 (seniors), $p=0.00009$. These quantifiable differences demonstrate construct validity for computer vision endoscope tracking as a measure of surgical experience.

Conclusion:

Computer vision tracking is a potentially useful structured & objective feedback tool to assist ophthalmic trainees in improving endoscope control. It enables juniors to examine how their pattern of endoscope control differs from that of seniors, focusing in particular on sections where they are most divergent. This study forms the basis for potential further work examining the relationship between improved endoscope control and superior instrument control.

Abstract Number: 110

Outcomes Of Endoscopic Dacryocystorhinostomy Performed By Trainee Oculoplastic Surgeons

Author: **Jonathan Norris**

rapid fire presentation

Purpose:

To report the outcomes of the endoscopic DCR (En-DCR) surgery performed by oculoplastic surgical trainees and to describe factors that may improve success rates for surgeons in training.

Methods:

A retrospective, comparative audit of 40 consecutive En-DCR cases carried out by 3 trainee oculoplastic surgeons at East Grinstead over a 3 year period was performed. Data including indication for surgery,intra and

postoperative complications, objective/subjective success and details of revision surgery was collected.Success was defined as complete resolution of epiphora with patency on syringing and a positive functional endoscopic dye test.Written informed consent was obtained from all patients and data collection was carried out with appropriate Institutional Review Board guidance.

Results:

The success rate for each surgeon was 16/18 (89%), 8/8 (100%) and 8/14 (57%), respectively with overall 80% (32/40) success at mean follow-up 17.8±15.0 weeks. The trainee with the lowest success rate used silicone stents in only 29% of cases compared to 89% and 100% by the other 2 trainees.
In failed cases who underwent revision surgery (n=6), all were found to have closure of the soft-tissue ostium and sac requiring flap revision. Two cases required further bone removal supero-posterior to the lacrimal sac.

Conclusion:

This study demonstrates good surgical outcomes achieved during the training period in En-DCR surgery.Failure in this audit was primarily due to closure of the soft-tissue ostium, either secondary to inadequate osteotomy and sac-marsupilisation or postoperative scarring. Intra-operative mucosal trauma is higher amongst trainees and adjuvant silicone stenting during the training period may play a role in minimising failure.

Abstract Number: 111

Botulinum Toxin Injection for the Treatment of Epiphora in Lacrimal Outflow Obstruction

Author: **Kimia Ziahosseini**

rapid fire presentation

Purpose:

To describe our experience with the use of botulinum toxin (BoNTA) for the symptomatic treatment of lacrimal outflow obstruction

Methods:

We retrospectively reviewed case-notes of patients with epiphora due to lacrimal outflow obstruction who chose to have injections of botulinum toxin into the palpebral lobe of the lacrimal gland instead of surgery between 2009-2014. Epiphora was graded subjectively with Munk scores obtained before and after treatment as well as qualitative degree of improvement reported by the patients. Severity and duration of side effects were also noted.

Results:

Seventeen patients (22 eyes, mean age 70.3, 4 males and 13 females) were identified. A mean of 3.5(range 1-10) injections of BoNTA (Botox®, Allergan)(1.25-7.5 units) were given per eye. Four patients underwent more than 3 injections. Median interval between injections was 4 (range 3-6) months. The mean Munk score (3.5, range 2-4) improved significantly after treatment to 1.63 (range 0-3, p=0.0001 paired two-tailed t-test). Fourteen (88%) patients reported modest to complete improvement of their symptoms. Epiphora completely resolved in a fifth, improved by up to 60-90% in a half and only “a little better” in a further fifth. Temporary bruising and diplopia (lasting 2 weeks) was reported in 12% (2/17).

Conclusion:

We report our outcomes for BoNTA to the palpebral lobe of the lacrimal gland in patients with lacrimal outflow obstruction epiphora seeking alternatives to surgery. This data may be of value for informed consent and for commissioning groups in funding this treatment.

Abstract Number: 112

Lacrimal Sac Tumours in a Teritary Referral Centre

Author: **Aruna Dharmasena**

rapid fire presentation

Purpose:

Lacrimal sac/duct tumours are rare and approximately 55% tumours originating in the lacrimal sac/duct have been reported as malignant. The mortality rates from these tumours are high due to their late presentation. We present a varied series of 7 cases of lacrimal sac tumours.

Methods:

A case series of seven consecutive cases and review of literature.

Results:

Seven consecutive cases of lacrimal sac tumours managed between 2009 and 2014, to Manchester Royal Eye Hospital were identified and analysed retrospectively. The age at presentation ranged from 26 – 85 years. The male: female ratio was 1: 2.5. All patients initially presented with epiphora. Histopathological analysis revealed solitary fibrous tumour (n=2), melanoma (n=1), chronic lymphocytic leukaemia(n=1), atypical lymphoid proliferation (n=1), oncocytoma (n=1), and a papilloma with focal transitional component (n=1). In 4 cases, the tumours were discovered during/after routine scheduled dacryocystorhinostomy (DCR) procedures. One patient had metastatic spread and died in spite of chemotherapy.

Conclusion:

A large proportion of lacrimal sac tumours are malignant and prompt diagnosis requires a high degree of suspicion during the initial clinical examination. All atypical/suspicious cases should be investigated by radiological investigations of the lacrimal drainage system. Many of these patients will need complex surgical procedures in collaboration with other head and neck specialities in order to attempt histological clearance.

Abstract Number: 113

Quality of Life Improvement From Dacryocystorhinostomy Surgery

Author: **Kenny Chan**

rapid fire presentation

Purpose:

It is increasingly recognised that anatomical patency alone does not define success in dacryocystorhinostomy (DCR) surgery. The patients' subjective perception of quality of life (QOL) is an outcome measure that is equally, if not more, important. A number of studies have investigated the perceived improvement in QOL in DCR surgery. However these are mainly for endoscopic endonasal DCR (EE-DCR) and with a retrospective questionnaire such as the Glasgow Benefit Index (GBI). This study aims to prospectively measure the QOL in patients undergoing either external DCR or EE-DCR with a QOL questionnaire both before and after surgery to demonstrate benefit.

Methods:

A 14 question questionnaire with minor wording modification from the validated GO-QoL was used to assess the symptoms' effect on patients' QOL. Similar to the GO-QoL the questions are divided into the consequences of decreased visual acuity or visual functioning (10 questions) and the psychosocial impact (4 questions). The

questions are answered on a three-point Likers scale. The answer “no, not at all limited” were given 2 points, “yes, a little limited” 1 point and “yes, seriously limited” 0 points. The total was converted to a score out of 100 with 100 being no loss of QOL.
The patients were given the questionnaire to complete at the time of consultation pre-operatively. After the surgery the same questionnaire is presented to the patients again ranging from 2 months to 1 year post operatively.

Results:

20 cases (19 patients) from November 2012 to January 2014 were prospectively recruited into the study. There were 11 external DCRs and 9 EE-DCRs. Ten cases where on male patients and ten on female patients. Patients’ age range from 42 to 82 (mean 65 years). Preoperatively the patients had a visual function QOL mean score of 51.98 (SD 24.73). This increased to 76.11 (SD 30.56) postoperatively. This represents an increase of 24.13 (p=0.001) which is statistically significant. In terms of the psychosocial QOL questions, the patients scored 47.5 (SD 26.47) preoperatively, increasing to 79.38 (SD 22.68) postoperatively. This represents an increase of 31.88 (p=0.000) which is highly significant.

Conclusion:

This study shows that, by using a disease specific QOL questionnaire before and after DCR surgery, patients experiencing a significant improvement in QOL in both the visual function and psychosocial domains can be reliably demonstrated. This is more robust than using the GBI which is performed only postoperatively and thus is subject to biases due to memory and perception changes. Our study also demonstrates that the improvement to QOL is evident in both external DCRs and EE-DCRs.

Abstract Number: 114

A Fair Exchange - Enucleation volumes in a normal population

Author: **Thomas Kersey**

rapid fire presentation

Purpose:

Post-enucleation socket syndrome is a challenge for the oculoplastic surgeon. We sought to investigate the real-life volume of enucleated globes by examining the displacement in a large series of eyebank donor eyes.

Methods:

A consecutive series of two hundred and thirty two donor eyes from the New Zealand eye bank donor service were examined by measuring the volume by displacement in BSS solution. All eyes were healthy and with no disease process that was likely to have altered the “normal” volume.

Results:

Two hundred and thirty two eyes from one hundred and sixteen donors were examined. The age range for the donors was 15-89 years with a mean of 61 years. The volume of globes ranged from 5.5 – 10.5 ml with a mean of 7.8 ml, median value 8.0 ml.

Conclusion:

Published textbook eye volumes are quoted between 6.5 - 7.2 mls. The figure 7.2 ml equates to a theoretical volume based on a 24 mm diameter sphere. It is generally accepted that a prosthesis should be around 2 ml to generate a realistic anterior chamber depth but not larger than this to avoid weight-related complications.

In our series the mean volume of healthy eyes donor eyes is larger than the currently recognised eye volume. This probably relates to the additional material often removed during enucleation - muscles stumps and optic nerve. If

we were to replace the median volume at a primary operation then we should replace 6.0 ml of orbital volume (8.0 ml - 2.0 ml) which equates to a primary implant of diameter of 22.54 mm. Where possible we believe using a greater implant volume should reduce the need for secondary socket volume-augmentation surgery after enucleation and primary implant.

Abstract Number: 115

The Versatility of the Temporoparietal Fascial Graft (TPFG) in Orbital Implant Exposure

Author: **Anjana Haridas**

rapid fire presentation

Purpose:

Orbital implant exposure is the most common complication of socket surgery. The purpose of this study is to demonstrate the versatility of the TPFG in orbital implant exposures of varying duration, implant types and patient age as well as for recurrent exposure. The use of TPFGs for hydroxyapatite, porous polyethylene and silicone implant exposure has been described previously. To the authors' knowledge, this is the first description of this technique for acrylic implant exposure and paediatric patients.

Methods:

Retrospective, interventional, non-comparative case series.

Results:

12 patients (13 grafts) are presented with a mean follow-up of 9.5 months. The duration of exposure prior to grafting ranged from 1-11 months occurring in bioceramic, hydroxyapatite, porous polyethylene and acrylic implant types. There were 2 graft failures (success rate 84.6%), one of which was treated with a 2nd TPFG. Both of these cases were associated with culture-proven implant infection. Two of the cases in this series were from the paediatric age group.

Conclusion:

This study provides further supporting evidence for the safety and efficacy of the TPFG. It is a versatile graft with respect to: 1) the effectiveness for both short- and long-duration orbital implant exposures; 2) the use with different implant types; 3) its use within paediatric cases and 4) the ability to use it successively in the same patient. We would recommend meticulous socket follow-up after orbital implant surgery to look for signs of early infection and a low threshold for antibiotic treatment. Should exposure develop despite these measures, a TPFG should be considered and may avoid the need for orbital implant removal.

Link to PDF ePoster

Abstract Number: 116

A Surgical Technique to Manage the Rounded Lateral Canthus

Author: **konal saha**

rapid fire presentation

Purpose:

To describe a simple technique to manage the rounded lateral canthus.

Methods:

Surgical Technique

1: The new eyelid margins are marked by drawing a line following the natural curve of the eyelids to the lateral orbital rim at a point intended to be the position of the new lateral canthus.

2: The lateral canthal web is split into anterior and posterior lamellae using a blade, extending the dissection to the lateral orbital rim with scissors.

3: The skin/anterior lamella is incised along the superior marking to create a skin flap based on the lower eyelid.

4: The conjunctiva, attenuated orbicularis/posterior lamella is incised along the inferior marking to create a conjunctiva lined flap based on the superior eyelid.

5: The flaps are folded over the raw edges of the newly created eyelid margins – the skin flap posteriorly and the conjunctiva lined flap anteriorly.

6: The flaps are secured with 8-0 absorbable suture.

7: The lateral canthal angle is supported with a transcanthal lateral canthopexy.

Following the procedure we encourage patients to digitally separate the newly created lateral eyelids to prevent adhesion formation.

Results:

The procedure was carried out on 7 patients, all of whom had previously undergone lower eyelid transcutaneous blepharoplasty.

Preoperative and postoperative photographs at 3 months were viewed by a blinded observer. All patients were noted to have elongation of the horizontal palpebral aperture and sharpening of the lateral canthal angle.

No significant complications were noted and no patients required reoperation.

Conclusion:

We present a simple and effective procedure for correcting rounding of the lateral canthi.

Abstract Number: 116

Outcomes of Enucleation for Retinoblastoma at Birmingham Children's Hospital

Author: **Fariha Shafi**

rapid fire presentation

Purpose:

Report outcomes of patients undergoing enucleation for retinoblastoma (RB) at Birmingham Children's Hospital (BCH).

Methods:

Retrospective consecutive case series. Patient demographics, implant characteristics, intraoperative details and postoperative complications were recorded.

Results:

239 patients (127 female, 112 male) underwent enucleation for RB between August 1992 and September 2013. Mean age was 2.3 years (range 2 months - 12 years). 4 patients underwent bilateral enucleation. Porous

polyethylene (Medpor®) sphere implants were used in the majority of cases (93.6%). Most common size of implant used was 20 mm (33.3%) and 18mm (30.7%). No significant intraoperative complications were encountered. Mean duration of follow-up was 36.5 months (range 2 weeks – 13.5 years). Postoperative complications were noted in 18 eyes (7.5%). 8 patients (3.3%) developed exposure of the implant. 1 case required replacement of an exposed 18mm implant with a 14mm implant. This patient developed intolerance of the overlying prosthesis with mucopurulent discharge. 1 patient developed exposure of a magnetic implant, which was successfully replaced with a 18mm porous polyethylene implant. The remainder of patients were managed conservatively. 5 patients (2.1%) developed conjunctival prolapse and 2 patients (0.1%) developed granulation tissue in the socket. 1 patient with severe eczema developed orbital cellulitis 2 months following enucleation with a 16mm orbital implant. The patient was treated with intravenous antibiotics and the implant was removed with no further complications.

Conclusion:

Orbital implantation with porous polyethylene implants is associated with favourable outcomes in the paediatric population following enucleation for RB.

Oral presentations on Friday

Abstract Number: 201

Neurovasculature Of Platysma In Facial Reanimation Around The Orbit

Author: **Grace Hui Chin Lim**

rapid fire presentation

Purpose:

To investigate the neurovasculature of platysma in order to find a common “window” containing nerves and blood vessels supply which is present in every individual. This will aid the plastic surgeons to reconstruct the neurovasculature of the flap for grafting onto the eyelids.

Methods:

6 fresh cadaver necks were dissected from 4 males and 2 females, aged 75-88 years old; (n=12 platysmas). 86 squared specimens (measuring 1.5cm x 1.5cm) surrounding any potential neurovascular structures were cut out, processed and analysed under high power microscope to confirm the presence of nerves and blood vessels. We also reviewed literature dated from 1999 to 2011.

Results:

From the literature reviewed, the authors concluded that PMF provided excellent functional and aesthetic outcome. In this study, we discovered a “window” flap (ranging from "2.5cm x 3cm‟ to "8cm x 10cm‟) bilaterally on each cadaver. This window is supplied by submental branch of facial artery, drained by facial vein, anterior and external jugular veins, and extensively innervated by cervical branch of facial nerve.

Conclusion:

We strongly advocate the use of PMF “window” by plastic surgeons in dynamic eyelids reanimation.

Abstract Number: 202

Peri-ocular Necrotising Fasciitis: A Multi-Centre Case Series

Author: **Saul Rajak**

rapid fire presentation

Purpose:

Necrotising fasciitis (NF) is a severe infection of the deep soft tissue including the fascia. It has high levels of morbidity and mortality. It occasionally affects the peri-ocular area (PONF). We present the largest reported case series of this condition, which elucidates some of the clinical and microbiological characteristics and the short and long term outcomes of this rare disease and identifies differences between PONF and NF elsewhere in the body.

Methods:

A retrospective case series of cases of PONF managed by members of the Australia and New Zealand Society of Oculoplastic Surgeons between 2000 and 2013.

Results:

We identified 14 patients with PONF. A preceding minor trauma was recalled in 9/13 patients, two of who were assaulted by the same assailant. Systemic shock occurred in 1 patient and none died. Group A Strep was the commonest bacteria identified. Intravenous antibiotics (IV ABx) and 1 to 5 sessions of surgical debridement were required for to control the disease in 12/14 patients. Two patients were managed with IV ABx alone. Reconstructive surgery was required in 7/14 patients. The long-term visual outcomes were very good: all except one patient preserved >6/18 vision in the affected eye(s), in follow-ups ranging from 2 months to 10 years.

Conclusion:

There are marked differences in PONF and NF elsewhere in the body. PONF is usually less severe, more controllable and has much better outcomes. In general, cases of PONF that received prompt diagnosis and treatment had better outcomes although there are exceptions.

Abstract Number: 203

Upper eyelid skin contracture in facial paralysis

Author: **Kimia Ziahosseini**

rapid fire presentation

Purpose:

To describe the occurrence and severity of upper eyelid skin contracture in patients with facial paralysis

Methods:

We carried out a cross-sectional study on patients with unilateral facial paralysis presenting to the facial palsy clinic at Queen Victoria Hospital, UK, December 2013 to March 2014. Patients with previous upper eyelid surgery or tarsorrhaphy on either side were excluded. We developed a standardised technique to measure the distance between the upper eyelid margin and the lower border of brow (LMBD). Facial paralysis was graded using the Sunnybrook grading scale.Its aetiology, duration and treatment were noted. Upper and lower marginal reflex distance, lagophthalmos and severity of brow ptosis was also noted.

Results:

Thirty-six patients (mean age 50.3, range: 10-79 years, 10 males and 26 females) were identified. The mean duration of paralysis was 65.4 (range: 2.5-348) months. Twenty- three (64%) patients showed shorter LMBD compared to the normal contralateral side. The mean contracture was 3.46mm (range: 1-12). The mean LMBD on the paralytic side in all patients was significantly smaller than the contralateral side; 30.40mm (95% CI, 29.23 to

31.82) compared to 32.61 mm (95% CI, 31.23 to 34.02), p=0.02 two-tailed t-test. Five patients showed contracture of 5mm or more, 11 showed 2-5 mm of contracture and 7 showed 1-2 mm of contracture. Contracture occurred as early as 2.5 months from the onset of paralysis.

Conclusion:

This is the first study that quantitatively demonstrates contraction of the upper eyelid skin in facial paralysis. This finding is valuable in directing optimal management in the acute phase to minimise skin contracture and to reinforce the principles of avoiding skin excision in these patients.

Abstract Number: 205

Outcomes of lower eyelid transconjunctival blepharoplasties with fat repositioning

Author: **Anupma Kumar**

rapid fire presentation

Purpose:

To present the audit results of a series of consecutive patients undergoing lower eyelid transconjunctival blepharoplasty with fat repositioning by a single surgeon (BL).

Methods:

A retrospective case note review of all cases performed between August 2010 and March 2014. Data collected included patient demographic details, intraoperative and postoperative complications, and postoperative outcome including patient feedback.

Results:

There were 39 patients included in the audit. There were 7 males and 32 females with a mean age of 48.5 years (range 32:69 years). The surgery was performed under LA with sedation using a tranconjunctival approach. In 25.6% (n=10) of patients adjunctive treatment was performed at the time of surgery including upper eyelid blepharoplasties, brow lift surgery and Coleman fat injections. There were no intraoperative complications. One patient, a diabetic, developed a bilateral lower eyelid infection 9 days postoperatively, which required urgent surgical intervention. There were 2 cases of suture related conjunctival granulomas. One patient required topical steroid treatment and the other patient settled after removal of the conjunctival suture. No patients experienced persistent lumpiness of the transposed fat.

Patient feedback was available in all cases. In 97.4% (n=38) patients were satisfied with the outcome of their surgery.

Conclusion:

In facial rejuvenation surgery transconjunctival blepharoplasty with fat repositioning can successfully treat appropriately selected patients with tear trough defects and eyelid fat herniation avoiding the potential stigmata often associated with a transcutaneous blepharoplasty. The overall patient satisfaction was very high using this technique.

Abstract Number: 206

Outcome of Xanthelasma treated with argon photocoagulation

Author: **Aneesa Nazreen Rahim**

rapid fire presentation

Purpose:

To evaluate the efficacy, tolerability and complication of argon laser coagulation of xanthelasma lesions.

Methods:

Retrospective case notes review of 33 patients who received argon photocoagulation for xanthelasma.

Results:

Sixty-three eyelids of 33 patients with xanthelasma that were flat with an average size of 35mm were treated using an argon green laser. The laser parameters were as follows: wavelength 514 nm; spot size 500 microns; energy 700 mW; the duration of the laser pulse 0.1-0.2 seconds. The procedure was done on outpatient basis under local anaesthesia. There were 23 females and 10 males, with the mean age of 48years ranging from 32 to 73 years. 91%(30) had bilateral lesions.
10% (3) had comorbid hypercholesterolemia and diabetes mellitus.
49%(16) had excellent result and required only one sitting of laser treatment. 36%(12) had two sitting, 9%(5) had three sitting of laser
treatment. There were no complication or scar formation in 97%(32); nevertheless 3%(1) had depigmentation on the laser site. The mean follow up was 6 months. To the best of our knowledge this is the largest series ever studied.

Conclusion:

Argon laser treatment is the best alternative technique especially in case with cosmetic indications. It's a safe, effective, fast and painless outpatient procedure with less postoperative care with the good acceptance of technique by the patient. This procedure should be considered as a first line of treatment in patients with multiple flat lesions.

Abstract Number: 207

Safety and efficacy of two-stage excision for periocular BCCs

Author: **Kieren Darcy**

rapid fire presentation

Purpose:

To investigate the safety of planned two-stage excision and reconstruction of periocular basal cell carcinomas (BCC), including simultaneous further excision and reconstruction in selected cases with involved margins after the first excision. High-risk anatomy and the definition of a clear/close margin were analysed.

Methods:

A retrospective case-notes review of 412 consecutive patients undergoing surgery at Bristol Eye Hospital (BEH) and Aintree University Hospital (AUH) over a five-year period.

Results:

412 patient surgical episodes in total from the two centres were identified. A two-stage surgical excision and reconstruction was planned in 332 (81%), 63 (15%) had one-stage, 16 (4%) three stage and 1 six-stage. A 2mm excision margin was used in 363 (88%); 3mm in 22 (5.3%) with 37 (9%) not documented. 73 (18%) of patients had a re-excision due to a close or involved initial surgical margin. Only 11 (15%) had tumour identified in this re-excision. All 11 had an initial positive margin. 9 of these were completely excised at this 2nd stage. 2 (0.49%) had

a close or involved margin requiring a third excision. Tumour involving the margin in an initial excision increases the relative risk of finding BCC in the re-excision ten-fold. Tumour location was also a critical finding of our study with medial canthal lesions increasing the risk of incomplete surgical control by 2.5 times.

Conclusion:

A planned two-stage procedure is a safe and effective method for treating selected periocular BCC. An involved margin increases the risk of residual tumour ten fold; conversely a close margin (>0.1mm) is relatively safer. Tumour location is also important. Greater consensus is required between surgeons and histopathologists in defining safe tumour management.

Link to PDF ePoster

Abstract Number: 208

Effect of Manuka honey on wound healing: Randomised controlled study on surgical upper eyelid skin wounds

Author: **Cornelia Poitelea**

rapid fire presentation

Purpose:

The aim of our study was to evaluate the effect of active Manuka honey on wound healing following elective upper eyelid surgery.

Methods:

A prospective randomised single-blinded study of 46 patients undergoing bilateral upper eyelid surgery (blepharoplasty with or without ptosis correction) over a period of 10 months was carried out. Patients were asked to apply honey twice a day to a randomly chosen eyelid and apply Vaseline to both eyelids for six weeks. A blinded assessor graded the scars at 1 week, 1 month and 4 weeks after surgery. We used Manchester scar scale, a subjective scar grading scale and a modified eyelid-specific scar grading scale developed by the investigators. Standardised photographs were also taken at each visit.

Results:

37 patients completed the trial (13 males and 24 females) without any complications. Mean age was 67 years (range 50-85). Of the 9 patients excluded, only 2 were related to honey use (1 possible infection, 1 found it too sticky). 4 months data was collected for11 patients, mainly due to patients non-attendance.The majority of patients preferred the appearance of the eyelid honey was applied to. This was true at 1 week (51% better), 1 month (40% better) and at 4 months (55%). The majority of patients also reported improved itching on the treated side. For all grading scales there was no significant difference between the two eyelids.

Conclusion:

This is the first randomized control trial of the effect of Manuka honey on eyelid surgical wounds. It appears people believe that the use of honey improves their wound healing and relieves wound related symptoms. Despite its stickiness, it is well-tolerated by patients in the first month of surgery.

Link to PDF ePoster

Abstract Number: 209

Delayed Skin Graft after Debridement for Surgical Treatment of Periorbital Necrotising Fasciitis

Author: **Mark Sigona**

rapid fire presentation

Purpose:

Is delaying skin graft after debridement for periorbital necrotising fasciitis more beneficial than early skin graft or allowing healing by secondary intention alone?

Methods:

Retrospective casenote review.

Results:

Patients were aged between 56 and 76. Two had bilateral periorbital involvement. Two were secondary to insect bites, one of whom also had sinus disease demonstrated on CT scan. One was secondary to herpes zoster ophthalmicus; one had concomitant tonsillitis and one had no obvious cause. Three of the patients were febrile, with temperatures ranging from 37.7 to 39.5 degrees C. All were admitted and treated with IV antibiotics. All patients required debridement of periorbital tissue, three requiring secondary debridement procedures.

One patient had skin graft procedures bilaterally six days after debridement. She later developed upper lid contractures with ectropion and exposure, and required a repeat skin graft four months later. In one patient, healing by secondary intention was allowed and she subsequently developed bilateral upper lid ectropion requiring skin grafts four months after debridement. The remaining patients all had planned autografts five to eight weeks after debridement with donor tissue from contralateral lids or neck. All patients with delayed skin graft made an excellent recovery.

Conclusion:

This case series highlights the benefit of late surgical repair once patients have completely recovered from the initial infection and initial debridement. Early skin Graft, or healing by secondary intention alone, was shown to be associated with contractures leading to ectropion and exposure requiring further surgery.

Abstract Number: 210

Use of Negative Pressure Wound Therapy in Complicated Preseptal Celulitis with Abscess and Necrotizing Fascitis

Author: **Rubén López-Oliver**

rapid fire presentation

Purpose:

If preseptal cellulitis is not treated promptly may evolve to orbital cellulitis, which may result in blindness or even intracranial complications including cavernous sinus thrombosis and death. Management of preseptal cellulitis consists in specific antibiotic therapy. Some complicated cases do not respond, and surgical drainage or debridation is required, after surgery edema and purulent discharge, retard wounds healing, lengthening patients' time of admittance, as well as prolonged use of antibiotics. We report the utility of Negative Pressure Wound Therapy (NPWT) as an adjuvant method in the treatment of preseptal cellulitis that requires surgical drainage.

The NPWT is a procedure in which negative pressure on a wound is distributed through a foam with the purpose of promote healing, eliminating excess exudate hindering bacterial growth, protecting the wound from the enviroment, promoting perfusion and wound edges approaching, thus providing a moisturized healing environment.(1)
OBJECTIVE

To evaluate for the first time the use of NPWT in a series of four complicated cases of preseptal orbital cellulitis, with partial response to intravenous antibiotic therapy, which required surgical treatment (drainage or debridation), as an adjyuvant method.

Methods:

CASE 1
A 60 year old male with medical hystory of type 2 diabtes mellitus, and 72 hours left orbital trauma, clinical and radiologically diagnosed with left preseptal orbital cellulitis. Visual Acuity (VA) no measurable because severe lid edema, treated intravenosuly with Meropenem 1000 mg, Clindamycin 300 mg three times a day and Vancomycin 1000 mg twice a day. Eyelid surgical debridation was performed, because of necrotic tissue; edema and purulent discharge persisted; NPWT was applied with a 125 mmHg negative pressure over the left orbit wound for 48 hours three times in one week, after this edema and discharge dramatically improved. Thus patient was ready for eyelid reconstruction, at this time VA reported 20/20.
CASE 2
A 17 year old male with 48 hours clinical history of preseptal cellulitis secondary to left eyebrow piercing infection. VA was no measurable because of eyelid edema, intravenous treatment included Clindamycin 300 mg three times a day and Ceftiaxone 500 mg twice a day. Computed tomography (CT) scan reported lid abscess thus transcutaneous surgical drainage was perfomed; purulent discharge resolved but lid edema persited; NPWT was applied over the left orbit with 125 mmHg for 48 hours, three times in one week, with complete resolution of edema and the presence of granulation tissue over the surgical wound, reconstruction was not necessary, final VA reported 20/20.
CASE 3
A 58 year old male with clinical history of type 2 diabetes mellitus and 3 days left palpebral trauma, middle palpebral edema was present, VA on the left eye reported 20/30, intravenous therapy included Clindamycin 300 mg three times a day and Ciprofloxacin 500 mg twice a day, surgical debridation was performed because the presence of necrotic tissue. Palpebral edema persisted. Abundant fibrin covered wound's bed. NPWT was applied at 125 mmHg over the left orbit 48 hours two times in one week, with improve in edema, granulation tissue over the wound, without fibrin. Final VA reported 20/20.
CASE 4
A one year old male with a 5 days clinical history of left palpebral edema, with VA not measurable because of palpebral edema, CT scan showed preseptal abscess and ethmoidal sinusitis. Treated intravenously with Clindamycin 40 mg/k/d and Ceftriaxone 100 mg/k/d, surgical drainage and NPWT transoperatively with 50 mmHg during 72 hours twice in one week. Showed edema resolution and granulation tissue proliferation. Reconstruction was not necessary. Four years follow up VA reported 20/20.

Results:

We reported 4 cases, all male (60, 58, 17 and 1 year old), diagnosed with complicated preseptal cellulitis, between 2-5 days of evolution. Two diabetic adults developed the condition secondary to trauma, while the young one was posterior a piercing infection, and the infant associated to sinusitis. All were treated with intravenous antibiotic therapy and surgical drainage showing partial improvement, and received NPWT every 48 or 72 hours for 2 or 3 times in a week. The NPWT reached 125 mmHg, except for the infant who received 50 mmHg. No ocular complications were observed.

Conclusion:

Antibiotic and surgical therapy achieve an effective but incidious resolution of complicated preseptal orbital cellulitis. It is well proved the effectiveness of NPWT on wounds' healing process. However the use of negative pressure has never been reported in this pathology. According to the mechanism of the NPWT, increased perfusion contributes to edema resolution and stimulates granulation tissue, thus accelerating wound healing. The NPWT showed to be a safe and effective method to treat complicated preseptal orbital cellulitis as an adjyuvant therapy to antibiotic and surgical treatment.

Abstract Number: 211

Ptosis and Neurofibromatosis – a surgical algorithm

Author: **Richard Scawn**

rapid fire presentation

Purpose:

To describe a surgical algorithm for Neurofibromatosis induced ptosis correction

Methods:

Retrospective chart review of 65 consecutive patients with neurofibromatosis treated at a tertiary oculoplastic unit during a 20 year period.

Results:

28 patients required ptosis surgery. Three distinct ptosis distribution patterns were identified. These groups corresponded to the trigeminal nerve eyelid anatomy and resultant neurofibroma location. These groups were Supra-trochlear, supra-orbital and lacrimal. The clinical presentations and surgical management differed between these groups.
Lacrimal nerve based neurobromas produced the classic S shaped deformity while supra-orbital and supra-trochlear generated central and medial eyelid ptosis respectively.
Lacrimal neurofibromas were associated with an involved and dystrophic levator palpebral superioris while supra-trochlear and supra-orbital neurofibromas demonstrated relative sparing of the levator muscle.

Conclusion:

Medial and central eyelid ptosis secondary to neurofibroma may be initially treated with good results by neurofibroma excision alone. However lateral, lacrimal nerve associated neurofibromas, will likely require ptosis surgery at the time of initial neurofibroma excision.

Abstract Number: 212

Does Oculoplastic Coding Matter?

Author: **Pierre Rautenbach**

rapid fire presentation

Purpose:

To investigate the process of recording and coding of procedures in Oculoplastics, and the implications on payment by results.

Methods:

Critically examine the process of recording and coding oculoplastic procedures in theatre and outpatients. To link this activity to the Healthcare Resource Groups (HRGs) national tariffs with examples to determine the financial implications of various coding options for certain procedures.

Results:

We demonstrate how frequently incorrectly recorded/coded procedures lead to significant underpayment. We show how correctly recorded procedures may also draw underpayment if the urgency or patients age is not accounted for. We also discovered various clinic procedures, which are not routinely accounted for. This has significant financial implications with respect to payment by results. Accurate recording is invariably linked to accurate coding and appropriate financial remuneration.

Conclusion:

Recording and coding of oculoplastic procedures underpins a primary income stream for the clinical service. By understanding the process, tariffs and educating all stakeholders, it is possible to increase much needed revenue to Ophthalmology Departments in this current fiscal climate.

Link to PDF ePoster

Abstract Number: 213

Congenital anophthalmia & microphthalmia management in a Tertiary Referral Centre

Author: **Aruna Dharmasena**

rapid fire presentation

Purpose:

To review the published literature on the management of congenital anophthalmia/microphthalmia and to present our experience of the management of these challenging cases.

Methods:

A literature search was performed in Medline/Cochrane Library. Thirty three English language publications were relevant and included in this review. In addition, the outcomes of 26 anophthalmic/microphthalmic sockets in a cohort of 17 subjects who were referred to us over the past 10 years (2004-2014) were retrospectively analysed.

Results:

An exponential rise in the number of microphthalmic/anophthalmic socket referrals was observed. Mean age at presentation was 5 months (95% CI, 3.4–6.6). M:F ratio was 1:1.3. There were 10 anophthalmic sockets (38%), out of which 4 patients had bilateral involvement, one had a microphthalmic fellow eye and one patient had unilateral anophthalmia. Sixteen sockets (62%) were microphthalmic. Mean follow-up was 25.7 months (95% CI, 15.4 - 36.0). Eight cases (31%) had syndromic associations such as chromosaolal translocations, CHARGE, Kabuki and Patau syndromes. After confirming absolute blindness all patients were fitted with a clear conformers. Subsequent management was tailored to the individual. Custom made cosmetic conformers, solid expanders, hemispheric hydrogel expanders and orbital implants were amongst other treatments options.

Conclusion:

We have seen a significant increase in microphthalmic/anophthalmic cases referred to Manchester Royal Eye Hospital in recent years. We emphasizes the need for raised awareness of their management. Continuous stimulation of growth of the orbit is key to the symmetrical growth of the orbit and midface and treatment options should be tailored to the individual patient.

Abstract Number: 214

Diagnostic accuracy of benign lid lesions: Nurse vs. Doctor-Led Service

Author: **Abhijit Mohite**

rapid fire presentation

Purpose:

To investigate whether benign lid lesions can be accurately diagnosed clinically and whether a purely nurse-led service was comparable to a doctor-led service. We also looked at the impact of grade of doctor within this

service.

Methods:

An interventional, retrospective case series of patients with suspected benign lid lesions who underwent excision with histological confirmation over a period of 6 years. The lid lesions were classified into seven subtypes. Clinical and histological diagnoses were analysed and retrospectively compared. Doctors were divided into six categories based on experience level. The nurse-led service was provided by a single specialist nurse.

Results:

596 lesions in 470 patients (mean age 56.0 years) were included. Overall diagnostic accuracy was 80%. Of the 20% that failed to concur with histology, 1.3% were missed malignancies, predominantly BCC's. Missed malignancies were highest in melanocytic naevi & epidermal inclusion cysts.

Sensitivity and specificity of clinical diagnosis were as follows: Benign epithelial proliferations 95.7% and 92.2% respectively, epidermal inclusion cysts 92.2% and 88.0%, cysts of Moll 66.7% and 96.7%, naevi 39.4% and 99.8% xanthelasma 97.5% and 100%, molluscum 20% and 99.8%, other benign lesions 50% and 99.8%. There was no difference in diagnostic accuracy amongst clinicians ($p>0.05$), with the specialist nurse and all doctor grades achieving comparable rates ($p=0.956$).

Conclusion:

We advocate histological confirmation of all excised clinically benign lesions, with added vigilance towards melanocytic naevi and epidermal inclusion cysts. An Oculoplastic nurse-led service is safe, cost-effective and comparable to a doctor-led service.

Link to PDF ePoster

Abstract Number: 215

Differences in Micro-RNA gene expresion underlie invasive behaviour of sebaceous cell carcinoma of the eyelid.

Author: **Daniel Ezra**

full oral presentation

Purpose:

Sebaceous cell carcinoma (SebCC) is a potentially lethal eyelid malignancy. There are two important clinical phenotypes for this disease: A nodular form and an invasive form which can grow spread in a pagetoid fashion. There have been no previous studies investigating gene expression patterns in these tumour types.

The aims of this study are to identify the pattern of micro-RNA(miR) in SebCC and to compare nodular and pagetoid tumours to determine which genes may be responsible for the different behaviours of these tumour subtypes.

Methods:

10 SebCC specimens were identified from the pathology library at the UCL Institute of Ophthalmology. 5 of which were nodular and 5 invasive. RNA was extracted from 10um section of paraffin blocks using standard techniques. Purified RNA was subjected to microRNA array analysis Using the NanoString system. Gene expression data was analysed using GeneSpring X software. Differences in gene expression were analysed using ANOVA and validated using standard PCR.

Results:

For localised nodular tumours, only 3 dysregulated miRNAs were identified: miR- 9, miR-34a, and miR-205 ($p<0.05$). For invasive tumours, 19 Dysregulated miRNAs were identified, of which 17 were unique to the invasive tumour. These include miR-106b, miR-93 and miR-21 ($P<0.05$). These uniquely expressed miRNAs in invasive tumours are known to mediate tumour invasion and metastasis.

Conclusion:

This study has identified important differences in the gene expression of SebCC which explain the molecular mechanisms underlying the transformation of this tumour. In addition, differences in expression between nodular and invasive tumours identify candidate genes responsible for invasive behaviour.

Abstract Number: 215

The Use of Fresh Amniotic Membrane Graft in the Management of Conjunctival Lesions: Two year Follow Up Data From Sheffield Ocular Oncology Centre

Author: **Umiya Agraval**

rapid fire presentation

Purpose:

We presented the novel use of fresh amniotic membrane graft (AMG) in management of conjunctival lesions at BOPSS 2012 where we highlighted the improved immediate post operative surgical outcomes with its use. We now present our 2 year follow up data in relation to long term local surgical outcome and survival.

Methods:

11 patients who had AMG following the excision of conjunctival lesions in 2011 were prospectively followed-up for a 2 year period.

Results:

2 year follow up: 2 out of 6 conjunctival melanoma patients developed in transit conjunctival metastases requiring proton beam therapy, both deceased within a year of treatment from systemic metastases. 3 patients with conjunctival melanoma were treated with post operative Mitomycin C (MMC) eye drops with no evidence of local or systemic metastases. All 3 in situ squamous cell carcinoma patients required post operative MMC drops and are recurrence free. The lower fornix sebaceous gland carcinoma patient, refused exenteration, needed AMG along with extensive lid excision and reconstruction, requiring multiple lid procedures resulting in extensive scarring, diplopia and restriction of eye movements but is comfortable. Benign pathology patient is stable and has been discharged.

Conclusion:

The use of fresh AMG has improved the local surgical outcomes of these patients by improving healing and reducing scarring as it allows for a wider surgical margin. We have noted that a wider, complete excision of lesions with non-touch surgical techniques reduces the risk of local recurrence and long-term survival is improved. Large conjunctival melanomas with in transit conjunctival metastases have a poorer prognosis.

Abstract Number: 216

Periosteal Muscle Anchoring for Large Angle Incomitant Squint – a multidisciplinary approach

Author: **tarang gupta**

rapid fire presentation

Purpose:

To describe a modified surgical technique for correcting very large angle exodeviations in patients with third cranial nerve palsies refractory to other treatments, and determine long term outcomes.

Methods:

A consecutive series of seventeen patients with large angle, incomitant squint were operated on at Moorfields Eye Hospital between 2005-2013 using periosteal anchoring by a joint Strabismus/Adnexal team. All patients underwent anchoring of the insertion of the medial rectus (MR) muscle to the periosteum of the medial wall via a retrocaruncular approach, in conjunction with either lateral rectus recession or complete disinsertion and fixation to the lateral orbital rim connective tissue. Retrospective analysis assessed previous procedures, pre operative prism dioptre (PD) deviations and complications.

Results:

17 eyes of 17 patients were included in the study. Mean follow up was 16.9 months (range 3 to 66). Pre operative exotropia ranged from 40 to 115 PDs (median 70). At the final follow up all patients had reduced horizontal deviations ranging from -80 to +14 PDs (median 16). The mean overall reduction in deviation was 50.2 PD (range 20 to 108). None of the patients required further surgery.

Conclusion:

Large angle incomitant divergent squints present a difficult surgical challenge. We advocate a combined bi-rectus fixation approach with traction sutures to hold the globe in the primary position

Link to PDF ePoster

Abstract Number: 217

Sensory inhibition in periocular facial dystonias

Author: **Tahrina Salam**

rapid fire presentation

Purpose:

A peculiar feature of periocular dystonias is the ability of some patients to dramatically attenuate their symptoms by sensory stimulation. This phenomenon is often described as ‘Geste Antagoniste’. The primary aim of this study is to describe the prevalence and nature of sensory tricks in benign essential blepharospasm (BEB) and hemi facial spasm (HS).
The secondary aims are to assess if the severity of the disease is associated with the presence of sensory tricks ir these patients and to analyse if the patients that use sensory tricks respond differently to botulinum toxin injections than the ones that do not use the sensory tricks.

Methods:

Non-interventional cross-sectional design, to study patients with facial dystonias in the adnexal department at Moorfields Eye Hospital. Questionnaire based study of 200 patients in clinic to assess the features of their dystonias and the possible relation to the sensory trick phenomenon.
A questionnaire was administered during routine appointments to all patients that match the inclusion criteria. The questionnaire was completed in 5 to 10 minutes and included different domains regarding severity of the disease (measured by Jankovic scale and Blepharospasm disability index), effect of previous botulinum toxin treatments (if administered), and the use of sensory tricks. We assessed other ocular features that could affect the severity and

outcome of the spasms, such as the corneal aesthesiometry as assessed with the Cochet-Bonnet corneal aesthesiometer; and the ocular surface state using the Oxford Scheme

Inclusion criteria include adult patients with well-established diagnostic of BEB and HS, who understood the study and agree with verbal consent to participate in it.
Exclusion criteria included patients with secondary blepharospasm related to ocular surface pathology, and patients that do not understand the study and / or do not consent to participate on it.

Results:

Preliminary data shows a prevalence of sensory tricks in 53% in our patient cohort. Patients with the sensory tick had a 20% reduction in the amount of botulinum toxin required and a longer average follow up period by 6-7 weeks. The type of sensory tricks encountered were varied and included pressure application to the face, chewing, singing and dancing.
Patients with the sensory tick had a better ocular surface score that those patients without the trick, and a slight decrease in corneal sensation.

Conclusion:

Benign essential Blepharospasm (BEB) and Hemifacial spasm (HS) are the most common movement disorders affecting the face. A distinct phenomenon in dystonia is sensory trick or geste antagoniste (GA).. A clear relation was found between the dystonia, the response to the current treatment with botulinum toxin, and the sensory tricks. Therefore a new approach with these patients could be tried using different devices to take advantage of the sensory tricks. To the best of our knowledge this is the largest study to identify the types of sensory tricks experienced and also the first study to describe a relationship between the severity of the spams and the use of sensory tricks.

Abstract Number: 218

Functional mid-face lift - does it stand the test of time and gravity?

Author: **Richard Scawn**

rapid fire presentation

Purpose:

Mid-face elevation and re-suspension can be used to address functional deficits secondary to mid-face descent and provide anterior lamella augmentation for lower-lid reconstruction. However a paucity of evidence exists regarding the long-term effectiveness of mid-face elevation surgery.

Methods:

Consecutive case series, retrospective chart review and objective digital image analysis of all patients undergoing mid-face re-suspension over a five year period in a tertiary oculoplastic and craniofacial facility.

Results:

A consecutive series of patients were identified with a minimum of 6 months follow up. The surgery was performed by four surgeons, within a single facility. Indications for surgery include congenital craniofacial abnormalities and acquired retraction secondary to trauma, neoplasia, involution, paralysis and cosmetic surgery. Fixation techniques included Mitek bone anchored sutures, endotines and drill hole fixation. Although some descent is anticipated the patients are deliberately over-corrected initially to account for this. The technique may elevate the lower lid without requiring traditional augmentation using anterior or posterior lamella grafts. (The technique is demonstrated in a series of intra-operative pictures)

Conclusion:

Mid-facial elevation surgery is a useful technique in facial and lower lid reconstruction. Mid-facial surgery provides an alternative method of anterior lamella augmentation. A soft tissue mid-face lift is preferred in acquired cases while a sub-periosteal technique is favoured in congenital cases. This retrospective analysis provides objective photographic documentation of the effect of time on the position of the lower lid margin.

Video presentations

Abstract Number: 301

An easy, effective lacrimal punctal widening technique using Kelly’s punch.

Author: **Hidayat Ullah Bhutto**

video presentation

Purpose:

Demonstrating the technique of using a Kelly's punch to perform punctoplasty

Methods:

The video demonstrates how to perform this procedure using Kelly’s punch which fits easily into the punctum after dilating, allowing for effective and controlled surgical punctal widening.

Results:

An effective punctal widening is achieved with ease.

Conclusion:

Punctal stenosis is a significant cause of watery eyes and can be caused by infections, injury (physical, chemical, irradiation or thermal), and certain systemic conditions. This is normally treated with a 1 snip, 2 snip or 3 snip procedure using scissors. The procedure is awkward with forceps and scissors as the tissues are delicate and slippery, and often post op the openings are not wide enough when performed by less experienced surgeons. We demonstrate the ease of technique using a Kelly’s punch which enables a significantly easier surgery to deliver an effective result.

Abstract Number: 302

Parallel demonstration of Endoscopic and External DCR (Dacrocystorhinostomy).

Author: **Hidayat Ullah Bhutto**

video presentation

Purpose:

Demonstrating both techniques using surgical videos.

Methods:

Parallel video demonstration showing the variations in the 2 approaches to achieve the same result of creating a communication between the lacrimal sac and the nasal cavity (Dacryocystorhinostomy) for blocked nasolacrimal ducts

Results:

The video shows the techniques of endoscopic and External DCR and in parallel such that surgeons preferring one or the other technique can see how the other technique serves to achieve the similar result.

Conclusion:

Two parallel videos demonstrate the variations between external and endoscopic DCR techniques through the surgical steps.

Abstract Number: 303

The access ‘finger septoplasty’

Author: **Thomas Jackson**

video presentation

Purpose:

To describe a simple technique for improving access in endonasal dacryocystorhinostomy

Methods:

Video demonstration

Results:

Endoscopic DCR is an operation that is now performed commonly by ophthalmologists. The operation relies on good nasal access to give sufficient space for manipulating both the endoscope and secondary instruments. If access is poor due to a deviated nasal septum, it can be combined with a formal septoplasty, however, this is an operation that is unfamiliar to most ophthalmologists.

Our video will demonstrate a simple ‘finger septoplasty’ which temporarily realigns a deviated nasal septum to improve access for endoscopic DCR.

Patients are prepared in the standard way for an endoscopic DCR with general anaesthetic and nasal preparation with patties soaked in 1:10000 adrenaline. The face is cleaned and draped. The surgeon inserts their little finger into the nostril on the side of the operation and applies firm pressure directly to the septum at the point of its deviation. The cartilage is flexible and the pressure deviates the septum to the contralateral side. This very simple technique causes no damage or bleeding of the septum and significantly improves access in cases of a deviated septum.

At the end of the operation the surgeon uses their finger to reposition the septum to its original position by applying pressure from the contralateral nostril

Conclusion:

Endoscopic DCR is technically challenging when nasal access is poor. The ‘finger septoplasty’ offers a very simple technique to improve access in cases with a deviated nasal septum

---

Abstract Number: 304

Small incision lateral direct brow lift in brow ptosis

Author: **Naeem Haq**

video presentation

Purpose:

To demonstrate a small incision direct brow lift technique to address brow ptosis.

Methods:

Brow ptosis causes lateral hooding of the upper lid skin and we suggest that functional correction of brow ptosis primarily necessitates elevating the lateral portion of the brow. The most common reason in limiting the use of direct brow lift surgery to elevate the brow is the potential for developing a prominent scar above the eyebrow. Strategies such as crenating the incision or performing endoscopic and pretrichial brow lift aim to prevent obvious scarring. These techniques carry their own risks mainly relating to potential numbness and muscle weakness secondary to nerve damage. We present a useful and simple technique illustrated by video demonstrating the method developed by the senior author to correct a mild, predominantly lateral brow ptosis. A step by step demonstration of the technique with audio commentary is shown. Post-operative images demonstrating the appearance of the brow and scar after healing are also included.
Informed consent with permission to film for the purposes of publication and presentation was obtained from all patients participating in the making of the video.
The video was created by the Medical Illustration department at the University Hospitals Leicester and edited by the authors.

Results:

Patients undergoing this technique reported a high level of satisfaction with the degree of brow lift with minimal visible scar.

Conclusion:

Small incision direct brow lift is a safe technique utilising an approximately 2cm incision over the lateral brow minimising the potential for an obvious scar.

---

ePoster presentations - Lid

Abstract Number: 501

Management of Giant Fornix Syndrome with irrigation with Povidone Iodine

Author: **Rushmia Karim**

poster presentation

Purpose:

We describe a case of a 98-year old women with a chronic unilateral conjunctivitis with enlarged superior fornices from superior aponeurosis dehiscence. Symptoms were present for 2 years prior to referral.There was complete secondary lid closure; an associated superficial punctate keratitis and a visual acuity of 6/60. She did not respond to several weeks of intensive (2 hourly) treatment with topical prednisalone 1% drops and chloramphenicol. Subsequent additional regular sweeping of the fornices with cotton buds and topical medication did not improve her symptoms.

Methods:

The patient then consented for sweeping of the fornices with 10% povidone iodine performed with topical anaesthesia as an outpatient procedure. Topical proxymetacaine 0.5% and tetracaine 1% was administered on cotton buds to both fornices. Cotton buds were then dipped in 10% povidone iodine and swept over the superior and inferior fornices several times. Double eversion of the upper lid was performed to ensure complete treatment of the superior fornix. Treatment was continued with topical 2 hourly prednisolone 1% and chloramphenicol for the

following 4 weeks.

Results:

There was a marked improvement in lid position; reduction in discharge; an improvement in visual acuity to 6/18 and she was able to open her eye. Three iodine washings were performed over 3 months in the outpatient clinic resulting in significant improvement of symptoms and signs . Topical treatment was then tapered to cessation.

Conclusion:

This treatment offers an effective management of GFS cases which do not respond to intensive topical corticosteroids and chloramphenicol.

Link to PDF ePoster

Abstract Number: 502

PlayDoh models are a very effective tool for teaching eyelid anatomy.

Author: **Fiona Jazayeri**

poster presentation

Purpose:

PlayDoh is cheap, easily available and simple to use. PlayDoh models are a very effective way of demonstrating the anatomy of structures in a three-dimensional (3-D) model. The use of PlayDoh models as an educational tool for visualization of cerebral aneurysm anatomy by neurosurgery trainees has previously been published. We present a method of constructing a PlayDoh model of the upper eyelid. For several years, this has been used to teach anatomy of the eyelid at oculopastics courses run by the Royal College of Ophthalmologists.

Methods:

The stages of creating a (3-D) model of the eyelid using PlayDoh are illustrated using sequential photographs and video.

Results:

PlayDoh models of eyelid anatomy are more efficient and realistic in training than simple drawings or photographs alone. No prior experience with PlayDoh is required to be able to construct the model. Different levels of anatomic detail can be illustrated depending on the audience. This educational tool has received unanimously excellent feedback from ophthalmology trainees, other surgical specialties, orthoptists and nurses at courses where it has been utilised.

Conclusion:

PlayDoh modelling is an extremely effective way of teaching eyelid anatomy in three-dimensions and is readily available at low cost. We recommend the use of this method of teaching eyelid anatomy to others.

Link to PDF ePoster

Abstract Number: 503

Ptosis surgery in the elderly

Author: **Ahsen Hussain**

poster presentation

Purpose:

The elderly are known to have an increased risk of surgical complications, with the proportion of their population increasing. Our study aimed to compare an elderly versus younger patient group requiring ptosis surgery to investigate surgical outcomes and incidence of complications such as dry-eye.

Methods:

Patients of 80 years and over comprised the elderly group, with the younger group being between 40-79 years. Our retrospective study was powered to detect a doubling of incidence of new or worsened dry-eye symptoms postoperatively with an 80% chance of detection at the 5% significance level. Categorical variables were compared between groups using a Chi-square test for independence. Continuous variables were assessed using the Wilcoxon rank-sum test.

Results:

335 consecutive patients were included in the study. 166 patients were defined as elderly (mean age 83.8) and 169 as the younger group (mean 67.4). 57% of the total cohort were female and 96.4% were Caucasian. The majority of patients underwent combined levator advancement and blepharoplasty (55.8%). MRD1 pre-op was significantly smaller (p=0.002) in the elderly group. 10.5% of patients had new/worse dry-eye at the first post-op rising to 17.3% by the second post-op. No significant difference in the incidence of new/worse dry-eye at first or second post-op (p=0.54), procedure performed, complication rate or MRD1 post-op was found between the age groups.

Conclusion:

Ptosis surgery in the elderly requires an appreciation of the higher prevalence of dry-eye symptoms within this group. Although our study has confirmed expected differences between a younger and older patient, our data supports the notion that outcomes and complication rates for this type of surgery are similar in the elderly and younger population.

Link to PDF ePoster

Abstract Number: 504

Smoothening the hedgehog

Author: **Vasilios Papastefanou**

poster presentation

Purpose:

When periorbital tumours invade the orbit, tumour clearance is usually possible by orbital exenteration, with or without adjunctive radiotherapy, but some tumours are inoperable. Vismodegib, a hedgehog (Hh) signalling inhibitor, is effective in treating advanced and metastatic BCC. We present a case of advanced BCC with orbital invasion successfully treated with vismodegib.

Methods:

An 84 year old man with a past history of BCC excision on the left upper lid many years earlier was referred with severe left proptosis, upper lid swelling, induration and ulceration. The left eye, which was barely visible, had no perception of light, significant chemosis, exposure keratopathy and total ophthalmoplegia. Previous biopsies confirmed recurrence of an infiltrative BCC of the left upper eyelid/eyebrow He was on warfarin for atrial fibrillation. CT and MRI scans confirmed extensive intraorbital tumour with no bone involvement. Exenteration of the orbit was considered but the patient declined. He underwent a palliative central tarsorrhaphy and was treated with oral vismodegib 150 mg daily.

Results:

After three months the tumour regressed dramatically. The eyelid mass/ulceration resolved and his proptosis and extraocular movement improved. MRI confirmed substantial regression of the tumour. He remains under observation 10 months later.

Conclusion:

The Hh signalling pathway is a key regulator of cell growth and differentiation during development. A link exists between the Hh pathway signalling activation and several human cancers, including BCC. Vismodegib is an inhibitor of smoothened, a key component of the Hh pathway. It is the first licensed Hh signalling inhibitor in clinical use for treating locally advanced and metastatic BCC. This case illustrates its usefulness in clinical practice.

Link to PDF ePoster

Abstract Number: 505

Keeping it in the Lid: the use of sandwich flaps and grafts in upper eyelid reconstruction

Author: **Michelle Ting**

poster presentation

Purpose:

The upper eyelid is a mobile vascular structure crucial for ocular protection and maintaining a clear visual axis. Reconstruction of large defects pose an oculoplastic challenge. Traditional reconstruction techniques involve either lid sharing that occludes or significantly diminishes the palpebral aperture (unsuitable for monocular patients) and require second stage procedures or recruitment of other anatomical units - from the forehead or lateral advancement with associated morbidity and scarring.

Methods:

Three cases illustrate the utilization of the bilamellar lid structure for successful 1-stage reconstruction of medium to extensive defects within the ipsilateral or contralateral eyelid and brow unit without recruitment from other facial anatomical units or occluding the visual axis.

Results:

Case 1: A young Afrocaribbean male with traumatic loss of half of his left upper lid reconstructed with lateral cantholysis and full thickness sandwich graft from contralateral side. Case 2: A shallow defect two-third lid width post excision of upper part of a kissing naevus in a Nepalese male was reconstructed with a V to Y advancement of the ipsilateral eyelid and a contralateral tarsal graft. Case 3: Huge sebaceous gland carcinoma with 5mm resection margins and histological clearance resulting in subtotal loss of upper eyelid in a elderly Caucasian female's only eye. This was reconstructed with a bipedicle flap from the ipsilateral brow and skin and tarsal graft from the contralateral upper lid.

Conclusion:

These cases demonstrate that the upper eyelid and brow area is a versatile source of graft and flaps centered on the well-vascularized orbicularis muscle that can be used reconstruct large to subtotal lid defects.

Link to PDF ePoster

Abstract Number: 506

External weight for temporary treatment of facial paralysis

Author: **Kimia Ziahosseini**

poster presentation

Purpose:

To describe our experience with the use of external weights and techniques for securing them for temporary treatment of facial paralysis

Methods:

We prospectively reviewed twelve consecutive patients with unilateral facial paralysis who were fitted with external weights as a temporary measure prior to surgical upper eyelid loading. We used double-sided adhesive tape, micropore tan tape, tincture of benzoin and medical glue. Outcome measures included patient comfort, amount of artificial tear usage and any problems associated with the weight or securing technique.

Results:

Five patients used medical glue to attach the weight. They all found it simple and quick with increased comfort and decreased use of artificial tear. Six patients used double-sided adhesive tape and micropore tan tape interchangeably. Two (of six) found micropore tan tape effective in securing the weight for at least 12 hours and improving their comfort. Two (of six) found that using ocular lubricants reduced the adhesiveness of the tape and stopped using the weight. One (of six) did not find it useful. One (of six) found it too awkward to use.

Conclusion:

We found external weights very useful in the majority of patients. Among different techniques, medical glue is a simple, quick and effective method for securing external eyelid weight. It lasts longer than the other techniques and can be used together with ocular lubricants.

Link to PDF ePoster

Abstract Number: 507

The reverse Hughes flap for the reconstruction of a total upper eyelid defect

Author: **Simran Mangat**

poster presentation

Purpose:

To describe and illustrate the rarely performed technique of a reverse Hughes flap in a 92 year old lady who underwent excision of BCC and reconstruction of a left total upper eyelid defect as a 2 stage procedure.

Methods:

Following complete excision of the upper eyelid to remove a BCC using the Slow MOHS technique, secondary eyelid reconstruction was performed. A lower eyelid grey line split was performed, the inferior tarsus was then anchored to the superior limb of the lateral canthal tendon and medial canthal tendon respectively using 6,0 polyglactin sutures. The levator aponeurois mobilised and advanced to the tarso-conjunctival flap from the lower lid. A free supraclavicular skin graft was then placed over the mobilised tarso-conjunctival flap. Intra-operative photographs were taken at each stage.

Results:

2 week results showed excellent healing of the graft and flap. Results following division of the Reverse Hughes flap will be presented.

Conclusion:

The reverse Hughes flap is a useful technique to reconstruct total upper eyelid defects. It provides an excellent alternative to the Mustarde switch flap, the Cutler-Beard flap or a free tarso-conjunctival flap and Bucket handled flap. Function of the eyelid is maintained well with good stability of the reconstructed eyelid.

Link to PDF ePoster

Abstract Number: 508

Patient satisfaction after ptosis surgery

Author: **Ahsen Hussain**

poster presentation

Purpose:

Satisfied patients are more likely to maintain relationships with their healthcare providers and comply with recommended medical care, with positive effects on health outcomes and avoidance of litigation. Evidence continues to be required that surgery delivers patient satisfaction.

Methods:

A single-centre single-surgeon prospective survey study using a Patient Satisfaction Survey (PSS) which was designed and administered to patients who had undergone any combination of acquired ptosis, dermatochalasis and/or brow-ptosis surgery. The PSS includes eight questions pertaining to the patients' perception of the improvement made to their appearance and vision after surgery, whether they considered it worthwhile and whether they would recommend the procedure. Survey scores were analysed for the global sample and a three-group comparison between the main procedures was performed.

Results:

A total of 79 PSS were administered with 76 patients participating. Ptosis surgery with blepharoplasty formed the largest group (n=35). Overall, percent favourable (score of 8 or higher) for each question ranged from 79.7% to nearly 100%. In comparative analyses, those with ptosis without blepharoplasty surgery had the lowest satisfaction with respect to improvement in appearance of the eyelids (p=0.04), and improvement in vision (p=0.03). Increased follow-up was significantly associated with lower satisfaction with appearance, vision and lower likelihood to recommend the procedure.

Conclusion:

Our PSS has demonstrated capacity to gauge satisfaction in this group of patients with a high satisfaction rate after ptosis surgery. Particular patient experiences such as type of procedure and length of follow-up can be significantly associated with specific satisfaction markers.

Link to PDF ePoster

Abstract Number: 509

Alternative management for floppy eyelid syndrome

Author: **Rishika Chaudhary**

poster presentation

Purpose:

We describe the use of ORTOPADS® in the management of floppy eyelid syndrome (FES) and to evaluate its effectiveness. ORTOPADS® are soft, hypoallergenic occlusive patches with hot melt adhesive, commonly used in the management of amblyopia in children. As the solid Cartella shield is often poorly tolerated overnight in FES we have explored the use of ORTOPADS® in the affected eye(s) to see if it is better tolerated to manage the conditior conservatively or whilst the patient attempts to lose weight/ achieve a healthy BMI (Body Mass Index).

Methods:

A total of 14 symptomatic FES patients were provided with standard sized ORTOPADS®. Two patients had previously undergone lateral tarsal strip surgery for FES by the same surgeon (JB). After 2 months the patients were sent an anonymous postal questionnaire. This used visual analogue scales (VAS). A scale of 1 (a significant deterioration) to 10 (a dramatic improvement) was used.

Results:

Percentage response rate for the questionnaire was 36%. The minimum trial period was 1 week. The maximum length of time that the ORTOPADS® were used was 18 months. 60% used the pads on the right eye; 40% used the pads on the left eye. 80% of patients preferred the ORTOPADS® to the eye shield. 1 patient did not like either. Average score of 6.21 out of 10 for symptomatic improvement and the overall score for the ORTOPADS® was 6.25. 60% of patients continue to use the ORTOPADS®.

Conclusion:

ORTOPADS® are readily available in most Orthoptic Departments, are well tolerated and relatively inexpensive. We show that ORTOPADS® are an effective way of helping to manage FES conservatively and are better tolerated than the standard eye shield. We recommend the use of ORTOPADS® to delay or prevent the need for any surgical intervention.

Link to PDF ePoster

Abstract Number: 510

Two Interesting Presentations of Ocular Plexiform Neurofibroma

Author: **Adeela Malik**

poster presentation

Purpose:

To illustrate two cases of orbital plexiform neurofibromas with no history of neurofibromatosis (NF) with associated interesting pathology.

Methods:

Two cases of adults with biopsy proven plexiform neurofibroma with no history of NF.

Results:

Case 1: A 59yr old man presented with a thickened left upper lid. He had previously undergone an evisceration for a painful, blind, buphthalmic eye due to congenital glaucoma resulting in endophthalmitis. Evisceration histology revealed an incidental choroidal melanoma for which he was treated with radiotherapy. Post radiotherapy he underwent a wedge excision to tighten his lid, which had been stretched by his buphthalmic globe. Histological examination of the thickened lid revealed a plexiform neurofibroma and further examination of the evisceration

sample revealed a prominence of ganglion cells within the choroid. As he had no history or signs of NF he was referred to the geneticist. The geneticist suggested it may represent a localized form of NF1 caused by a gene change in the left orbit. Interestingly, NF has been linked to cases of choroidal melanoma.

Case 2: A 54yr old lady presented with left proptosis noted since trauma to the eye 12 months prior. She had no signs of inflammation and normal vision. CT and MRI showed extraocular muscle and lacrimal gland enlargement, an orbital mass extending through the superior and inferior orbital fissure and a further temporal fossa mass. Orbital and lacrimal gland biopsy demonstrated a plexiform neurofibroma. She had no history of NF. On review of old photos it became obvious that she had had left proptosis for many years. She was referred for a neurology review.

Conclusion:

Isolated plexiform neurofibromas can be found in adults with no history of NF.

Link to PDF ePoster

Abstract Number: 511

Platinum segments: a new option for adjustable upper eyelid loading

Author: **Cornelia Poitelea**

poster presentation

Purpose:

Upper eyelid loading with gold or platinum is a popular and important treatment for the rehabilitation of patients with lagophthalmos due to facial palsy.

Platinum chains have fewer complications (astigmatism, migration, bulging or extrusion) and better cosmesis when compared to standard rigid gold implants. We report the use of thin, surgeon-linked 0.2g and 0.4g platinum segments (PS, Altomed) in these patients. PS combine the advantages of platinum chains whilst being cheaper and allowing for adjustment, if the desired effect is not achieved after implantation.

Methods:

This was a prospective study of patients with facial palsy undergoing upper eyelid loading with PS. 0.2g and/or 0.4g PS were sutured together with 6/0 nylon to create a chain of the desired weight. The PS were sutured high or the tarsus and to the recessed levator with 6/0 Nylon. Data (patient age and sex, PS weight, marginal reflex distance, lagophthalmos) and standardised photographs (used for grading contour and prominence) was collected pre-operatively and 3 months after surgery.

Results:

10 patients (6 female) with a mean age of 53 years (range 25-68 years) took part in the study. The average weight implanted was 1.2g, comprising 3 PS on average. All demonstrated near complete resolution of their lagophthalmos, with no complications during the follow-up period. The majority of the patients had a natural upper eyelid contour and no discernable prominence of the PS at final follow-up.

Conclusion:

New surgeon-linked platinum segments are a useful alternative for upper eyelid loading when treating lagophthalmos. They allow the option of adjustability of weight without the need for exchange.

Link to PDF ePoster

Abstract Number: 512

The surgical management of periocular complications from the use of the dermal filler Novabel ®

Author: **Anupma Kumar**

poster presentation

Purpose:

To describe the surgical management of patients with periocular complications related to the use of the withdrawn dermal filler Novabel ®.

Methods:

We present three patients who underwent the successful surgical excision of extensive lower lid/cheek foreign body granulomata. Data presented will include pre and postoperative clinical photographs, histology results and details of the surgical management.

Results:

Each patient had undergone lower eyelid tear trough injections with the dermal filler Novabel ®. The patients developed progressive firm, non-tender swellings in the lower eyelids and upper cheeks approximately 3 to 6 months after the initial treatment. One patient had been treated with oral steroids and two patients had undergone periocular injections of saline and steroid prior to referral. Following some initial improvement the problems had recurred.

The patients underwent surgery by a single surgeon (BL). The dermal fillers and inflammatory masses were removed successfully using a subciliary skin incision combined with primary fat grafting in one patient. Adjunctive steroid injections were required for each patient.

Conclusion:

All dermal fillers are associated with risks and potential complications. Novabel ® is an alginate dermal filler which was withdrawn from the market in August 2010 due to reports of adverse granulomatous reactions.

These cases highlight the potential surgical strategies, which can be considered in order to manage periocular granulomatous reactions unresponsive to medical management alone.

Link to PDF ePoster

Abstract Number: 513

Medial spindle with buried cutaneous suture: technique and results

Author: **Marta Perez-Lopez**

poster presentation

Purpose:

To describe technique and outcomes of using a skin stab incision to bury the suture during medial spindle surgery

Methods:

A diamond shape of conjunctiva and lower lid retractors posterior to the lacrimal punctum is excised as described for the original technique. A stab skin incision is made at the junction of the lower eyelid and cheek skin. A double-armed suture is passed through the inferior retractors and inferior tarsal plate and instead of passing the suture

through the skin and into a bolster, it is knotted beneath the stab incision skin. If a 6/0 vicryl is used on a 11mm needle, it can be used to close the skin also. First follow up was at 2 months.

Results:

A retrospective review of all medial spindle operations performed from May 2011 to May 2013 by the same surgeon was undertaken. Only patients with follow-up > 6 months were analysed. No patients developed suture related complications or dimples, and incision scars were essentially invisible. Surgery was anatomically successful in 44/46 and functionally successful in 100%.

Conclusion:

Medial spindle technique with stab incision is a successful technique for correcting medial ectropion where patients don't have to tolerate the tender unsightly bolster and also reduces the number of visits without compromising the outcome.

Link to PDF ePoster

Abstract Number: 514

Keratoacanthoma or squamous cell carcinoma in a 42 year old man?

Author: **Marta Perez-Lopez**

poster presentation

Purpose:

To highlight learning points in management of a lesion initially diagnosed as a keratoacanthoma (KA)

Methods:

A 42 year-old man was referred from dermatology for a KA in his lateral left brow. The lesion was 22 mm diameter, symmetrical and keratin-plugged. It had appeared 8 weeks ago and the patient reported it was starting to regress. The lesion was excised with 4mm margins, processed conventionally, and reconstructed using a rotational temple flap

Results:

Histology showed a squamous cell carcinoma with perineural invasion (PNI) and a very narrow deep margin. Re-excision was deemed necessary and he then required 3 stages of Mohs' micrographic surgery to achieve clearance. This was largely for lateral rather than deep tumour extension which was completely undetected by the conventional excision margin result. He finally required extensive reconstruction including a bridged segment of a paramedian forehead flap divided after several weeks, and he has since had adjuvant radiotherapy.

Conclusion:

Keratoacanthoma is a spontaneously involuting variant of SCC but is typically a lesion of the elderly: be wary of the diagnosis in younger patients and manage accordingly, due to the risk of PNI.
Where skin is short, a bridged segment of a paramedian forehead flap is ideal for lateral brow reconstruction.

Link to PDF ePoster

Abstract Number: 515

The use of a PEEK (Polyetheretherketones) Implant to reconstruct the Mid-face Region

Author: **Rumana Hussain**

poster presentation

Purpose:

A good functional and cosmetic result following midfacial reconstructive surgical procedures is of paramount importance. We describe the use of a PEEK (Polyetheretherketones) implant to reconstruct the mid-face area, following extensive mutilating surgery due to an infiltrative skin tumour

Methods:

Case report

Results:

A 67yr old gentleman underwent multiple and extensive surgeries to the left cheek and lower lid due to a highly aggressive metatypical basal cell carcinoma (BCC). Complete clearance of the recurrent tumour resulted in a cosmetically evident absent cheek contour and facial deformity. The PEEK implant was used to restore the bony cheek contour, with good aesthetic outcome and restoration of the facial symmetry.

Conclusion:

Pre-operative planning with 3-dimensional CT scans allow for customization of the implant. PEEK implants have been scantily described in the peri-orbital region. The material has a very low reported morbidity and also has the advantage of improving intra-operative predictability and reducing surgical time in complex reconstructive procedures.

Link to PDF ePoster

Abstract Number: 516

Finasteride induced eyelid swelling

Author: **Tsong Kwong**

poster presentation

Purpose:

To highlight an unusual case of bilateral upper and lower eyelid swelling secondary to oral Finasteride treatment taken for benign prostatic hyperplasia (BPH).

Methods:

Retrospective case note analysis

Results:

A 84 year old gentleman presented with a 3 month history of bilateral upper and lower lid swelling. There were no other associated symptoms to suggest thyroid orbitopathy. Past ocular history included a blind right eye secondary to a longstanding shot gun injury and recurrent episodes of blepharoconjunctivitis. Past medical history was unremarkable except for a diagnosis of BPH. External examination revealed periorbital lid swelling and redness bilaterally, mild blepharitis and dermatochalasis. There was also a right convergent squint. Further questioning revealed that the patient had recently commenced Finasteride, a medication used in the treatment of BPH. With no other cause identified it was decided to have a trial period off this medication and the lid swelling completely resolved within a few weeks.

Conclusion:

Finasteride is a type 2 5-alpha-reductase inhibitor that prevents the conversion of testosterone to

dihydrotestosterone. It is commonly used in the treatment of benign prostatic hyperplasia and also male pattern baldness. Recognised side effects include testicular pain and generalised hypersensitivity reactions of which lip and facial swelling have been reported. Published ophthalmic case reports involving finasteride, however, have only mentioned an association with cataracts and intraoperative floppy iris syndrome. Our case has highlighted an unusual and previously unreported cause of isolated periorbital lid swelling in a patient taking Finasteride.

Link to PDF ePoster

Abstract Number: 517

Excision of Periocular BCC – what is the safe depth for the deep surgical margin?

Author: **Tristan McMullan**

poster presentation

Purpose:

To work out the depth of periocular BCC extension in the study population and to discuss the safe depth for the deep margin for standard surgical excision of BCC and identify variables influencing it

Methods:

Retrospective analytical study involving review of medical records of histologically confirmed periocular basal cell carcinoma managed in Northampton General Hospital during the period 2008-2012. Relevant demographic, clinicopathological and histopathological data were collected.

Results:

78 BCC cases were recruited. All were managed with conventional excision. 85% were excised with 3mm peripheral surgical margin with overall clearance rate of 89.7%. Deep surgical margin was positive for tumour cells only in 1.3% (1) of primary excision specimens . In 91.67% instances tumour depth was less than 3.5mm. Only 2 patients (2.78%) had their tumour depth more than 4mm . Histologically 60% were nodular subtype and 25% were infiltrative or mix nodulo-infiltrative. During the period of follow up which ranged between 1 to 57 months (median 13 moths), there was no tumour recurrence was reported. We did not find any statistically significant association between tumour depth and demographic or tumour characteristics.

Conclusion:

Tumour depth for periocular BCC was below the range of 3.5-4 mm, in over 90% of instances. During conventional wide margin excision, a satisfactory deep clearance rate can be achieved by adhering to the general rule of excising through subcutaneous tissue. But more precisely, if the deep surgical margin is in 1.5 - 2.0 mm depth in the subcutaneous layer (about 3.5 to 4 mm from the surface of the tumour) , there is over 90% chance of achieving primary clearance.

Abstract Number: 518

A Novel Virtual Template for Graft-Free Excision of Large Upper Eyelid Lesions

Author: **James Laybourne**

poster presentation

Purpose:

To describe a novel method for large upper eyelid skin lesion excision associated with modified blepharoplasty.

Methods:

A standard blepharoplasty excision site (BES) was marked on the upper eyelids of two patients. Each border of their asymmetric upper eyelid lesions (xanthelasma palpebrarum) was marked to form an elliptical lesion excision site (LES) along relaxed skin tension lines. The skin was then held under tension and callipers measured the distance 'A' from the upper LES border to the upper BES border along a virtual radial line lying at 90° to the upper eyelid skin crease curve. The callipers were then moved inferiorly along the same virtual line so the same distance 'A' could be marked from the lower LES border to a point inside the marked BES. This method was repeated so enough points were marked inside the BES to create a Virtual Template of the LES size, shape and alignment. The marked BES upper border was then modified to follow the Virtual Template, reducing the surface area of the BES by that of the LES. The LES and modified BES were excised. The LES was sutured, reforming the original BES shape before it was sutured.

Results:

Complete lesion excision, patient satisfaction, symmetry, good sulcus skin fold contour and equal skin show were achieved for all eyelids.

Conclusion:

The Virtual Template method produces good cosmesis for large upper eyelid lesions that are separate or cross the BES upper border if the LES height is less than the BES height. Free skin grafts are not required and it reduces potential inaccuracy from making estimated LES templates before or after lesion excision.

Link to PDF ePoster

Abstract Number: 519

Posterior approach white line advancement ptosis repair: modification of the Malhotra technique.

Author: **Faye Mellington**

poster presentation

Purpose:

To describe and illustrate a simplification of the Malhotra surgical technique of transconjunctival posterior approach white line advancement ptosis correction for patients with moderate to good levator function.

Methods:

Illustrated description of surgical technique.

Results:

We describe a technique whereby after dissection of the Mullers-conjunctiva composite flap, the levator aponeurosis is advanced with three evenly spaced double-armed absorbable sutures passed through the white line then through the superior tarsal border (partial thickness) without bringing the sutures through to the skin. A 2mm sliver of conjunctiva is removed and the remaining conjunctiva is then draped over the superior tarsus with the aid of a squint hook as the upper lid is re-verted.

Conclusion:

This modified and simplified revision of the Malhotra technique of white line advancement for posterior approach ptosis repair has several advantages: it involves minimal dissection and does not require per-operative adjustment and therefore allows predictable ptosis repair under heavy sedation or general anaesthetic; it leaves no visible sutures; it has a high success rate with good cosmetic outcomes. It is technically straightforward, time-efficient

and easy to learn.

Link to PDF ePoster

Abstract Number: 520

Instant, adjustable, non-surgical ptosis solution

Author: **Khadijah Basheer**

poster presentation

Purpose:

To highlight the use of cosmetic eyelid tape to adjust eyelid position and improve eyelid ptosis

Methods:

We present a 35 year-old female with bilateral ptosis secondary to oculo-pharangeal syndrome. She previously underwent bilateral ptosis surgery with subsequent second ptosis correction to her right eye. However the patient still experienced functional impairment with reduced visual field and was unhappy with the cosmetic appearance. However clinical examination demonstrated bilateral lagophthalmos and mild corneal exposure keratopathy, she was therefore counseled against further surgery.

Results:

A solution was found by the patient using double-sided eyelid tape which is widely available on the Internet The tape is commonly used for eyelid cosmesis, often for the creation of a double eyelid appearance within Asian patients. The patient used this tape to selectively elevate her eyelid for cosmetic reasons and functionally increasing her visual field. The patient is able to remove the tape prior to sleeping or should the eye become dry. We present a series of photographs before and after use of this eyelid tape to demonstrate the tape application technique and the effect achieved.

Conclusion:

This case highlights a novel and inexpensive way for patients to improve eyelid appearance, including ptosis. It is readily available on the Internet marketed at patients with droopy eyelids and those with wishing to create a larger palpebral aperture or a skin crease. This application could be used in the oculoplastic setting for patients who are unsuitable or hesitant to proceed with ptosis correction surgery, for patients who wish to show their surgeon how they wish to appear post-operatively or as a temporary improvement in eyelid cosmesis.

Link to PDF ePoster

Abstract Number: 521

Ptosis Surgery: How to break the barriers and improve accuracy of audit

Author: **Vijay Wagh**

poster presentation

Purpose:

To review the improvement in accuracy of audit measure documentation and reaudit outcome and safety profile of ptosis surgery.

Methods:

We reviewed effect of newly implemented structured teaching and training on juniors and effect of audit proforma introduction which was implemented following previous review. We reaudited our results of 30 consecutive ptosis surgeries with minimum twelve month follow up. Data were collected from Electronic patient records and patient notes.Success rate was assessed objectively and subjectively grading questionnaire using BOPSS criterion.

Results:

Mean Age of the patients was 53.8 yrs (Range 18-80 yrs) with female preponderance (18:12). Commonest etiology was involutional and majority had moderate ptosis (49%). Success rate was 84% using subjective criterion and 80% using objective criterion. Two patients had significant lagopthalmos following surgery and one patient had resurgery for reformation of upper eye lid skin crease. There is significant improvement in documentations of the data (85% vs 52%). Use of proforma and photographic documentation was extremely helpful in collecting data and to confirm accuracy of the data. Comparison with previous audit shows significant improvement in our results.

Conclusion:

We established effective implementation of structured teaching and training on juniors doctors and audit proforma introduction in measuring audit outcome. We also established good outcome and safety profile of Ptosis surgery at our unit and results were comparable to national average.

Link to PDF ePoster

Abstract Number: 522

Malignant transformation of an eyelid kissing naevus in an 8-year-old boy.

Author: **Angelos Sinapis**

poster presentation

Purpose:

To report an unusual case of malignant transformation of an eyelid kissing naevus in an 8-year-old boy and to discuss the management options.

Methods:

Case report.

Results:

An 8-year-old boy was referred to the Oculoplastics Department of the University Hospital Southampton for excision of a kissing naevus in the area of the right medial canthus. The kissing naevus had been present since birth with reported fleshy growth in the upper lid portion over a 6 month period. It was excised with full thickness skin grafts from both upper lids. Pathology report of the excised lesions along with cytogenetic analysis concluded a description of melanocytic tumour of uncertain malignant potential. Decision was made for further wide local excision and sentinel lymph node biopsy. Wider local excision was performed successfully (no residual melanocytic lesion was noticed) with post-auricular full thickness skin graft to the defect. Sentinel lymph node biopsy showed micrometastatic melanoma. Radical neck lymphadenectomy was undertaken showing no further melanocytic lesion.

Conclusion:

Malignant transformation of an eyelid kissing naevus is very rare and the management plan in this case can be challenging.

Link to PDF ePoster

Abstract Number: 523

Anterior Approach Ptosis Surgery Under Topical Anaesthesia

Author: **Chris McLean**

poster presentation

Purpose:

A technique is described whereby anterior approach aponeurotic surgery is completed under topical anaesthesia.

Methods:

Twelve patients underwent aponeurotic ptosis surgery. Topical anaesthesia was discussed preoperatively with patients but not recommended for those who were significantly anxious about the procedure. Those who agreed to topical anaesthesia understood that they could request additional subcutaneous local anaesthesia at any stage during the operation. An occlusive dressing was placed over the upper eyelid under which was placed EMLA anaesthetic cream. The dressing was left in situ for 45 minutes prior to surgery. Anterior approach aponeurotic surgery was then carried out by first making an 8 mm long skin crease incision. Gentle bipolar cautery was used for haemostasis. The levator aponeurosis was identified, advanced and sutured to the tarsal plate with a single 5-0 Ethibond suture and the skin incision closed with interrupted 8-0 Vicryl sutures.

Results:

All twelve patients described only mild symptoms of discomfort during the procedure. None of the patients requested additional anaesthesia in the form of a subcutaneous injection at any time during the procedure. All patients had a satisfactory eyelid height at the end of the procedure, with minimal bruising.

Conclusion:

Topical aponeurotic ptosis surgery has the advantage of avoiding the discomfort of the initial subcutaneous local anaesthetic injection normally used for this procedure and the bruising that is associated with this. It is not suitable for anxious patients or in those cases where there is a high incidence of bleeding, as excessive use of the bipolar cautery can be uncomfortable.

Link to PDF ePoster

Abstract Number: 525

Blepharoplasty in Morbihan Syndrome

Author: **Abdul Hanifudin**

poster presentation

Purpose:

To report our surgical experience in the treatment of Morbihan Syndrome (rosaceous lymphoedema of the eyelids)

Methods:

A case series of 4 patients with Morbihan Syndrome is presented. Each patient had chronic upper and/or lower eyelid swelling which was non responsive to medical treatments. Standard upper and/or lower eyelid blepharoplasty surgery was performed in 3 patients.

Results:

Each patient initially had a satisfactory result from surgery, but in all three cases the eyelid swelling returned between 7 and 21 months later requiring further blepharoplasty surgery. Of three cases, one patient had a long term improvement after two procedures.

Conclusion:

The treatment of Morbihan Syndrome remains a challenge. Medical treatments have not been shown to be effective and surgical results are variable. Blepharoplasty surgery can be effective in reducing eyelid oedema but the patient should be warned that whilst the initial results can be encouraging, more than one procedure may be required.

Link to PDF ePoster

Abstract Number: 525

Sebaceous cell carcinoma: A double masquerade

Author: **Morag Adams**

poster presentation

Purpose:

Our interesting case report illustrates a double masquerade of an upper lid sebaceous cell carcinoma; as an asymmetrical
blepharitis but simultaneously as a diffuse, inflammation of lid tissue presumed to be reaction to sling material post-operatively
following a third redo silicone brow suspension, for correction of congenital ptosis.

Methods:

N/A

Results:

N/A

Conclusion:

Sebaceous cell carcinoma may exhibit diffuse, pagetoid spread, which invades the epidermis of the eyelid and epithelium of the
conjunctiva, clinically simulating a benign inflammatory process; such as blepharoconjunctivitis, which is well described.

Our case report illustrates a double masquerade as a chronic inflammatory response to the sling material in the silicone brow
suspension. Histopathology of the upper lid biopsy confirmed a sebaceous cell carcinoma with periadnexal epithelial pagetoid involvement. To our knowledge, this masquerade has not been described in the literature.

Our patient required 5mm excision margins and repair of upper lid defect with a large frontal pedicle flap and mucous membrane
graft, performed as a joint procedure with plastic surgeons.

A high clinical index of suspicion for sebaceous cell carcinoma as a masquerade should be maintained. Consideration will lead to prompt biopsy and diagnosis of this rare, aggressive tumour which demonstrates a high rate of regional and systemic metastasis. This will avoid delays in diagnosis with its associated morbidity and mortality.

Link to PDF ePoster

Abstract Number: 526

Predicting periorbital soft tissue outcomes in hypertelorism surgery. A radiologic study of 18 patients and 30 controls.

Author: **Tharsika Karunakaran**

poster presentation

Purpose:

Hypertelorism (HPT) can have a profound impact on appearance and social function. Skeletal correction is undertaken to achieve a favourable appearance change. We ask whether quantified orbital translocation can predict soft tissue change and thereby facilitate planning for aesthetic outcome.

Methods:

Pre and post operative CT data of 18 hyperteloric patients and 30 controls treated by two surgeons at Great Ormond Street Hospital were entered into Osirix software. Inter-dacryon distance (IDD), inter-lateral orbital wall distance (ILoD), palpebral fissure width (PFW), inter-canthal distance (ICD) and palpebral fissure angle (PFA) were correlated, and assessed against osteotomy technique and canthopexy details.

Results:

PFW is unchanged postoperatively, independent of surgeon/technique, providing a constant reference value. Medial canthopexy did not increase canthal medialisation, but in combination with lateral canthopexy may improve control of the PFA. Mean preoperative ratio IDD:PFW is 1.41 reducing to 0.94 postoperatively (mean control = 0.64). Mean preoperative ratio ICD:PFW of 1.89 reduces to 1.53 (mean control = 1.16). The correlation of IDD:PFW to ICD:PFW is 0.89 preoperatively decreasing to 0.77 postoperatively, suggesting that the medial canthus and dacryon move imperfectly together.

Conclusion:

We propose the use of the PFW as a denominator in generating patient specific ratios as the PFW does not change postoperatively. Lateral canthopexy can modify palpebral fissure angle. Surgery significantly reduces the IDD:PFW and ICD:PFW but does not reach control value. Control IDD:PFW is 0.64 - providing a novel, prospective, directly measurable target in HPT surgical planning.

Abstract Number: 527

Multi-disciplinary rehabilitation in Ablepharon Macrostomia Syndrome

Author: **Marta Perez-Lopez**

poster presentation

Purpose:

To report ocular features of this rare condition, the associated likely stem cell deficiency; and the multi-disciplinary rehabilitation required to achieve eyelid closure including use of rib cartilage.

Methods:

A boy was born in 2007 with severe eyelid deficiency, rudimentary ears, learning difficulties and failure to thrive. His neonatal management included split skin grafts to all 4 eyelids. This gave corneal protection, albeit dependent

on a good Bells' and frequent lubricants throughout his early childhood. Unfortunately he gradually developed marked corneal vascularisation unrelated to exposure, areas of conjunctival and cornea keratinisation, a left convergent squint and dense left amblyopia. His nutritional status was poor prior to PEG feeding, but he was never recorded as vitamin A deficient. More recently he has had full thickness skin grafts to both lower eyelids supported by rib cartilage grafts overlaid with bucket handle orbicularis flaps. While each eye was done separately, rib cartilage was harvested only once: the second graft was left buried subcutaneously in preparation for the second procedure to minimise harvesting risks and time.

Results:

Lagophthalmos has resolved. The corneal vascularisation is however unchanged despite topical treatments.

Conclusion:

A rare and challenging syndrome, where the multidisciplinary approach and the use of rib cartilage proved invaluable as no ear cartilage was available. Rib cartilage provides excellent material as a spacer against gravity, and excepting donor site access appear superior to auricular cartilage regarding shape, size, pliability and ease of use.

Link to PDF ePoster

Abstract Number: 528

Audit of Posterior approach white line advancement ptosis repair

Author: **Simran Mangat**

poster presentation

Purpose:

To audit the results of a simplification of the Malhotra surgical technique of transconjunctival posterior approach white line advancement ptosis correction for patients with moderate to good levator function. Results compared to the BOPSS national ptosis survey.

Methods:

Retrospective review of a consecutive series of 9 procedures on 8 patients with primary aponeurotic ptosis undergoing posterior approach repair using this modified method. We describe and compare our results as per criteria defined by the BOPSS national ptosis survey.

Results:

There were 8 ptosis procedures during this period. There were 2 women and 6 men. The mean age was 70 years. Pre-operative phenylephrine test was positive in 7 patients. Minimum follow-up was 3 months. All patients achieved their desired lid height. One patient had a slightly flat contour. No patients were over-corrected. No patients required re-operations. Discomfort was not a concern post-operatively. All patients were subjectively completely satisfied.

Conclusion:

This modified and simplified revision of the Malhotra technique of white line advancement for posterior approach ptosis repair achieves results exceeding those achieved in the national ptosis survey. This modification doesn't compromise the results of white line advancement ptosis surgery.

Link to PDF ePoster

Abstract Number: 529

Merkel cell carcinoma caused and complicated by viral infection

Author: **Daniel Morris**

poster presentation

Purpose:

To describe a case eyelid Merkel cell carcinoma (MCC) caused by polyomavirus (MCPyV) in a patient with psoriasis. The eyelid reconstruction was complicated by auricular donor site wound inoculation from an active herpes simplex virus (HSV) keratitis.

Methods:

A 55 year old lady with longstanding scalp psoriasis presented with a 3 week history of an enlarging dusky red left upper lid tumour. An incision biopsy showed a Merkel cell carcinoma. She was treated with wide local excision of the whole left upper eyelid with a clear marginal strip. The defect was repaired using a Cutler Beard flap and an interlamellar auricular cartilage graft followed by local radiotherapy.

Results:

Despite a previous history of excellent general health, this patient developed HSV infection of the cartilage donor site. She had been treated with topical acyclovir for a possible dendritic ulcer of the non-surgical right eye. After intravenous antiviral and antibiotic treatment she developed a cephalic vein thrombosis and 2 months later a left parotid recurrence of the MCC, treated with facial nerve sparing parotidectomy with cervical lymph node excision and radiotherapy.

Conclusion:

1. Infected monocytes localizing within lesions of inflammatory diseases, such as psoriasis, may release MCPyV locally, infect Merkel cells and induce MCC.
2. Viral transfer of HSV enveloped virus from the cornea to another site might have occurred in this case. This has not been previously reported to our knowledge.
3. The presence of psoriasis and a rapidly expanding chalazion-like eyelid mass might increase the likelihood of a diagnosis of MCC, which requires urgent treatment.

Link to PDF ePoster

Abstract Number: 530

Use of Doppler ultrasound in planning of modified paramedian forehead flaps

Author: **Kenneth Chan**

poster presentation

Purpose:

To describe a single-staged paramedian forehead flap technique, where the base of the axial flap is safely narrowed by intraoperative identification of the artery using Doppler ultrasound.

Methods:

Doppler ultrasound is used to identify the supratrochlear artery in the area of the planned flap, which is then marked. The required flap is drawn around this vessel and the base of the flap, where the pedicle will rotate, is thinned to avoid a bulky area of rotation, while the integrity of the vessel is preserved. This avoids the disfigurement of a bulky rotational area and therefore the need for a second-stage procedure to revise this area of

the flap.

Results:

There was no incidence of flap necrosis in the 3 patients to date where this technique was used. All flaps were cosmetically satisfactory in the area of the nasal bridge and required no revision of this area.

Conclusion:

We would recommend this manoeuvre in all axial flaps where it could be advantageous to narrow the rotating area of the flap.

Link to PDF ePoster

Abstract Number: 530

Modified Quickert procedure to correct entropion

Author: **oral adil bekir**

poster presentation

Purpose:

To check the outcome of Quickert procedure in entropion cases

Methods:

A retrospective case series study ,23 patients underwent Quickert procedure to correct age related lower eyelid entropion between October 2011 to December 2012 in Rotherham Hospital.
The change in procedure from original description was in few points
1-Full thickness eyelid resection was done in the middle of eyelid rather than in the lateral part.
2-Hooking of lower eyelid retractors:taking long vertical bites from lower part of retractors .
3-After hooking the retractors,the sutures passed through pretarsal orbicularis near lid margin and not coming out of skin below lashes as originally described.

Results:

Total of 28 Quickert procedures were performed by one surgeon.Age range of patients:63-94/mean age:78 years.Gender:12 male and 11 female.14 cases were right sided,5 cases left sided, rest bilateral. 22 Cases were operated for the first time while the remaining 6 cases were recurrent entropion.Follow up ranged from 1 to 11 month/mean follow up was 3 months.
Post operative review showed normal lid position in all the 28 cases with no post operative complications.

Conclusion:

Quickert procedure is effective method to correct age related lower lid entropion with high success rate

---

Abstract Number: 531

Evaluating the Agreement Between GP's and Ophthalmologist's in Diagnoses Concerning Eyelid Lesion

Author: **Georgios Agorogiannis**

poster presentation

Purpose:

To assess whether diagnoses of eyelid lesions suggested by GP's were matched to the final diagnoses of Ophthalmologists. Also to evaluate whether these referrals were appropriate and made efficient use of a "See and Treat List".

Methods:

This audit was undertaken in the Ophthalmology Department, James Paget University Hospitals, Gorleston-on-sea, UK.
In eight clinics, 48 patients were referred to the "See and Treat List". Of these 32 were male and 16 were female. The mean age was 56.33 ± 17.23 years; range 18-85 years). Of the 40 patients that attended the list, 7 did not arrive and 1 cancelled on the day. 80% of the patients (32 patients) were referred directly by GPs.

Results:

High accordance (25/32) between GP's and ophthalmologists were found. In one case, a lesion that was referred as malignant was revealed to be a basal cell carcinoma. No malignant lesion was misdiagnosed by GPs and referred as benign.

Conclusion:

All GP referrals to the "See and Treat List" were appropriate. We are also able to conclude from this audit that GPs have a good awareness of common of eyelid lesions and are able to correctly differentiate benign from malignant lesions.

Link to PDF ePoster

Abstract Number: 533

Primary intraepithelial sebaceous cell carcinoma treated with mitomycin C and imiquimod

Author: **Andrea Zarkovic**

poster presentation

Purpose:

To describe a case of primary intraepithelial sebaceous gland carcinoma of the ocular surface treated topically with mitomycin C drops and imiquimod cream.

Methods:

We present the case of an 81 year old man who presented with left conjunctival erythema and discomfort due to widespread cicatricial and inflammatory changes of the ocular surface. Map biopsies showed intraepithelial sebaceous gland carcinoma involving the bulbar and tarsal conjunctival surface and the skin of the upper eyelid. The patient declined any form of disfiguring surgery. His conjunctival disease was treated with a course of mitomycin C drops, followed by a course of imiquimod cream for the eyelids.

Results:

Treatment was well tolerated. Three months after the completion of treatment, there was significant improvement in patients symptoms and the appearance of the ocular surface. Further map biopsies of the conjunctiva showed clearance of the disease at 5 out of 6 biopsy sites. Biopsy of the eyelid skin showed no evidence of intraepithelial disease. A further course of mitomycin C is planned.

Conclusion:

Mitomoycin C is a good treatment option for sebaceous cell carcinoma confined to the conjunctival epithelium in

cases where local resection is not possible. This is the first documented use of imiquimod for primary intraepithelial sebaceous carcinoma affecting the eyelid skin. The treatment combination of mitomycin C and imiquimod may avoid exenteration in selected cases.

Link to PDF ePoster

Abstract Number: 534

The nasolabial flap in facial palsy reconstruction.

Author: **Bejal Shah**

poster presentation

Purpose:

Surgical technique description and case presentation.

An eighty-four year old male presented to the oculoplastic service with longstanding acquired, complete lower motor neuron facial nerve paralysis. Prior mid-facial resuspension surgery and lower lid tightening had been unsuccessful. The patient now had severe mid-face descent, ectropion, lagophthalmos and exposure keratopathy, with orbicularis muscle atrophy.

Methods:

A two stage procedure was performed. A vertical right nasolabial flap was raised and two weeks later rotated horizontally to provide lower eyelid support. Mid-face pre-periosteal dissection was performed and the mid face resuspended with three Mitek bone anchor sutures:

In the first stage a vertical elongated “v” shaped flap was constructed extending from just lateral to the mid-shaft of the nose to just lateral to the right corner of the lips. At this stage the flap was merely incised and loosely sutured a its origin, but not transferred. We felt that this delayed flap technique would enhance the sustainability of our flap.

In the second stage, the flap was mobilised and rotated ninety degrees clockwise to its intended position; horizontally just inferior and parallel to the right lower lid. The flap was anchored with Mitek sutures to the orbital rim, and sutured with 8.0 PDS. Additionally, a mid-face elevation and canthopexy was undertaken, as well as a frost suture placed which was removed the following morning.

Results:

Post operatively, the patient was seen to have significant elevation of his previous mid-face ptosis and improvement of his lagophthalmos. The patient reports a significant reduction in his problematic drooling and epiphoria, and aesthetically he has vastly improved symmetry of his face. The flap itself appears healthy with no signs of ischaemia.

Conclusion:

Whilst the vast majority of patients with bells palsy can expect complete recovery of their symptoms, a minority present with longstanding effects. This patient displayed perhaps the most severe complete paralysis we had seen, and subsequently had persistent symptoms despite surgical intervention. There are many well established surgical interventions described, including insertion of an upper lid gold weight to alleviate lagophthalmos through to temporalis transfer.

Our method of constructing a nasolabial flap which is rotated and transferred just inferior to the lower eye lid is as yet undescribed in this scenario and certainly provided us with encouraging results, both functionally and cosmetically.

Link to PDF ePoster

Abstract Number: 535

The Mitek anchor in oculoplastic surgery

Author: **Olivia Li**

poster presentation

Purpose:

To present the Mitek anchor device, insertion technique and oculoplastic surgical indications.

Methods:

The Mitek anchor (Depuy Mitek EMEA, Rome) is a coupling device, combining rigid bone fixation and adjacent soft tissue re-approximation. Originally developed for orthopaedic surgery and used in ligament repair, Mitek device use has expanded into ENT and Maxillofacial surgery in temporo-mandibular joint surgery and hyloid suspension for sleep apnoea. Mitek anchors have also found a role with oculoplastic surgery and we wish to highlight the use of this technology to oculoplastic surgeons. The authors have no financial interest in the product.

Results:

The technique is demonstrated using a step-by-step intra-operative photograph sequence.

The Mitek anchor device consists of two suture arms attached to a bone anchor, housed within a detachable plastic implantation holder. The insertion technique: 1) The site of bone fixation is marked and pre-drilled 2) the mounted anchor is pushed into the snug drilled ostium site until a give is felt which indicates proper fixation 3) The implantation housing is detached to release the two attached sutures 4) The adjacent soft tissue is then approximated to the underlying bone using the two sutures ends. Multiple Mitek anchors may be placed according to the clinical indication.

Conclusion:

Mitek anchors are a useful adjunct for oculoplastic surgeons in procedures requiring soft tissue fixation to bone and may offer a good alternative to periosteal soft tissue fixation. Mitek anchors may be particularly useful in mid-face elevation, especially medially, an area that is typically difficult to achieve good soft tissue support. Mitek anchors may also be successfully employed in the lateral orbital rim to provide rigid lateral canthal fixation.

Link to PDF ePoster

Abstract Number: 536

Appropriate diagnosis and management of Floppy Eye Lid Syndrome

Author: **Sudheer Dhanireddy**

poster presentation

Purpose:

Floppy eye lid is a rare condition associated with various systemic conditions and can present with varied ocular symptoms and could be easily missed without proper history taking, clinical examination and further investigations to confirm the association with various systemic conditions. The purpose of this presentation is to highlight the manifestations of floppy eye lid and associated systemic disorders, diagnosis and appropriate management of Floppy Eye Lid surgically and medically.

Methods:

Gathered evidence about the management of Floppy Eye Lid from Literature and applied in the appropriate management of Floppy Eye Lid both medically and surgically. In this presentation cases of typical Floppy Eye Lid were presented highlighting how they were misdiagnosed and treated as simple ptosis and surgical correction was performed to correct the ptosis ignoring the symptoms, signs and presentation of Floppy Eye Lid resulting which resulted in failure. These cases were treated with surgical procedures tailored to the patients depending on the presentation of Floppy Eye Lid and associated features like ptosis, dermatochalasis, lower lid ectropion in single step or multiple interventions resulting in satisfactory outcome both cosmetically and functionally.

Results:

With careful planning of surgical management tailored to each individual patient, good surgical outcome was achieved either by Lateral Canthal Tightening alone or staged correction by Lateral Tarsal Strip and Ptosis Correction on separate occasions. Associated lower lid ectropion or laxity is also addressed.

Conclusion:

Though Floppy Eye Lid is a rare condition, it cannot missed with careful history taking and examination. The aim of this presentation is to diagnose the condition appropriately, analyse the systemic associated conditions and treat the condition surgically and medically to get the best results with surgical procedures suited to each individua patient.

Abstract Number: 537

Development of an algorithm for objectively determining tarsus curvature using ultrasound videos

Author: **Olivia MacVie**

poster presentation

Purpose:

To use a computer-based image-processing algorithm to establish objective evidence of changes in the curvature of the tarsus relative to the line of vision. Changes in the tarsal curvature of the upper eyelid relative to line of vision are important especially in surgical correction of paralytic lagophthalmos in which the upper lid is weight loaded with rigid or flexible implants.

Methods:

After an ultrasound examination with a 7.5 MHz scanner (no-contact method) of the upper eyelid tarsus with the patient in primary, left and right gaze, a computer-aided examination of the upper eyelid tarsus was performed followed by the calculation of the radius of curvature of the tarsus relative to the line of vision in each position.

Results:

Using regression of a Taylor polynomial, the shape of the tarsus was mapped by a quadratic function, and we were able to objectively demonstrate changes in tarsal curvature relative to line of sight.

Conclusion:

Objective evidence of changes in the tarsal curvature relative to the line of vision, may influence choice of upper lid implant, flexible versus rigid, in the treatment of paralytic lagophthalmos with upper lid loading.

---

ePoster presentations - Orbits

Abstract Number: 538

Primary orbital angiosarcoma – a treatment dilemma

Author: **Nazila Ahmad Azli**

poster presentation

Purpose:

To report a rare case of primary orbital angiosarcoma in an elderly with conflicts in treatment

Methods:

A case report

Results:

A 60 year old Chinese man was referred for left eye proptosis of 4 years' duration. Clinically, he presented with a unilateral left non-axial proptosis. His best corrected left visual acuity was 6/24 while his right visual acuity had no perception to light. There was a mass felt over the left upper eyelid, which was soft to firm in consistency and with ill-defined borders. The overlying skin was not inflamed, non-tender and there was no thrill or bruit. The degree of proptosis did not increase with valsalva manoeuver. There were dilated and tortuous vessels occupying the superotemporal part of the conjunctiva. He had a complicated cataract surgery done in the left eye and was pseudophakic with an anterior chamber intraocular lens implanted. Left optic disc was pink and normal but his posterior pole revealed a choroidal striae. However, he had a mature cataract with a long-standing retinal detachment in the right eye. Pattern of growth was demonstrated radiographically and histopathologically, confirming primary orbital angiosarcoma. In view of a precious eye, he refused an orbital exenteration.

Conclusion:

Primary orbital angiosarcoma is best treated with orbital exenteration. In a complexed situation whereby exenteration is not the best solution, radiotherapy may have its role in controlling the disease. However, angiosarcoma may progress despite the therapy given due to its aggressive behaviour.

Link to PDF ePoster

Abstract Number: 539

Magnetic Resonance Elastography of extraocular muscles - a new application

Author: **Ahsen Hussain**

poster presentation

Purpose:

Magnetic Resonance Elastography (MRE) is a rapidly evolving technology for the quantitative study of the mechanical properties of tissue. Current applications are well established in hepatic and skeletal muscle investigation. We sought to modify and employ the techniques to the study of extraocular muscles in-vivo.

Methods:

Suitable drivers were fashioned and tested including a swimming goggle type apparatus, gel-filled eye mask and beaded mask attached to an external dynamic excitation device which propagated vibration waves. These were applied to the orbit in suitable volunteers who underwent MRI scanning with analysis of the region and shear waves through extraocular muscles. Data was processed with suitable computer algorithms already employed in other MRE applications.

Results:

All eight volunteers tolerated the procedure well with no safety concerns throughout the scanning period. Gradient-echo based MRE sequences were affected by the presence of significant air in the sinuses and therefore a spin-echo based sequence was deemed more appropriate with 150Hz vibration data collected. All drivers produced waves in the scalp area and two were found to produce waves within the eye muscles. With current techniques, it was determined that a larger motion wave would be required for data processing algorithms to provide repeatable stiffness measurements.

Conclusion:

Our early tests have shown that the beaded gel-filled mask driver showed the best promise for this study. Further modifications including placing muscles under tension during versions has shown better signals. The technique shows promise in providing quantitative non-invasive stiffness measurements of eye muscles affected by pathology such as Grave's Ophthalmopathy.

Link to PDF ePoster

Abstract Number: 540

New management strategies for periocular and orbital amyloidosis in a tertiary UK service

Author: **Naeem Haq**

poster presentation

Purpose:

To determine the clinical features, management and outcome of periocular and orbital amyloidosis in a tertiary UK service.

Methods:

Retrospective, interventional, case series of patients treated at University Hospitals Leicester between 2004 and 2012. Casenotes of all patients diagnosed with amyloidosis were analysed. Clinical features, investigations, treatment modalities and outcomes were evaluated.

Results:

Casenotes of 5 patients (3 females and 2 males) were analysed. 3 patients presented with eyelid lesions, 2 with proptosis. The mean age at presentation was 60.6 +/- 5.1 yrs, the mean follow up was 36.6 months. 4 of 5 (80%) patients were managed in conjunction with the National Amyloidosis Centre.
4 of 5 patients had Lambda light chain disease. The mean number of imaging procedures was 2.2. 3 of 5 patients had systemic involvement; 4 of 5 patients did not have visceral involvement on SAP scintigraphy. Occult systemic disease was detected by PET-CT in 1 patient previously undetected by SAP scintigraphy.
4 of 5 patients underwent surgical resection, the mean number of operations was 1.6. 2 patients required multiple operations for progressive disease.
1 patient underwent treatment with systemic Infliximab but also required surgery for ocular disease.

Conclusion:

Amyloidosis is a rare disorder which is often progressive and difficult to manage effectively. Surgical resection remains the mainstay of treatment for localised periocular disease. In our series, multidisciplinary management in conjunction with a specialist centre and newer imaging techniques have obviated the need for multiple invasive systemic biopsies. We advocate the use of PET-CT as a new imaging technique to detect occult systemic disease.

Link to PDF ePoster

Abstract Number: 541

Unusual presentations of cranial meningiomas

Author: **Tsong Kwong**

poster presentation

Purpose:

We would like to present 2 cases of cranial meningiomas initially presenting to the oculoplastic clinic.

Methods:

Case report

Results:

The first case is of a 45 year old with 6 month history of a sensation of fullness in her temporal fossa and blurred vision on the same side. It was noted on examination there was a proptosis and corresponding optic disc swelling. Urgent imaging revealed the presence of hyperostosis and a sphenoid ridge meningioma en plaque. Unexpectedly, there was evidence of multiple meningiomas in the occipital and parietal lobes possibly indicating an underlying systemic disorder such as neurofibromatosis.
The second case is of a 38 year old with a 3 month history of worsening vision in both eyes and an apparent change in behaviour and cognitive function. Initial examination revealed severely reduced vision and colour vision defects. Despite normal appearances of the optic disc, there was a bitemporal hemianopia. Urgent MRI reveals a large extra axial mass in the anterior cranial fossa consistent with a large bi-olfactory groove meningioma causing compression of the optic nerves, frontal lobe syndrome and anterior pituitary dysfunction. Urgent neurosurgical removal revealed a mildly atypical meningothelial meningioma.

Conclusion:

Meningiomas are insidiously growing intracranial lesions which can result in catastrophic vision loss due to its late presentation. In addition to vision loss, there are a variety of presentations including proptosis and optic nerve dysfunction. As ophthalmologists, It is important to realise that depending on their location ocular and orbital examination may be entirely normal and other neurological symptoms may predominate.

Link to PDF ePoster

Abstract Number: 542

Ocular-Facial Prostheses - the Journey towards Cosmetic Rehabilitation: A 5-year Experience at a Specialist Ocular Oncology Unit

Author: **Imran Haq**

poster presentation

Purpose:

The Royal Hallamshire Hospital in Sheffield is unique in that it is one of 4 specialist Ocular Oncology units in the UK, and as a result has been prolific in the rates of exenterations carried out when compared to the published literature. The philosophy and design of ocular prosthesis and orbital implants have evolved significantly since the post World-War period, and in the last decade achievements in implant design and biomaterials have reduced complication rates prfoundly. However, for many ophthalmic professionals, the principles behind contemporary implants remains a mystery.

Methods:

A retrospective study reviewing operating department records via a computerised database to identify all patients who had undergone exenteration of the orbit from April 2008 to May 2013 inclusive, at the Royal Hallamshire Hospital in Sheffield.

Results:

Over a five year period, 11 patients were identified whom had undergone a variety of aesthetic camouflages with formal prosthesis. Their experiences have been assessed in the form of a telephone questionnaire.

Conclusion:

In this study the authors present a case series of 11 patients to delineate their techniques, experiences and pearls along the journey towards cosmetic rehabilitation, which is often long, and fraught with multiple hospital visits for longterm recurrence follow-up, and profound consideration of psychological effects. The authors will also look to discuss what accomplishments can we foresee in the next ten years.

Link to PDF ePoster

Abstract Number: 543

To scan or not to scan, when to scan & what to scan?

Author: **Thomas Jackson**

poster presentation

Purpose:

To report the relevance and outcomes of all orbital CT scans requested by the Oculoplastic service

Methods:

Retrospective review of case notes of all orbital CT scans between Jan 2007 and Jan 2013

Results:

A total of 592 CT scans were performed and pathology identified in 303(51%). The common indications were thyroid eye disease (16%), an intra/extraconal masses (5%) and lacrimal gland pathology (3%)

We analysed the accuracy of the pre-scan clinical diagnosis with the radiological diagnosis. This was most accurate in conditions with clear clinical signs such as cellulitis (100%) and less accurate in conditions such as suspected lacrimal pathology (80%) or an orbital mass (73%) where the clinical signs are more subtle. Interestingly 23% of scans done as a baseline test in the absence of clinical signs were radiologically positive

22 cases with an orbital mass and suspected systemic pathology underwent a whole body CT scan prior to biopsy. This revealed systemic pathology in 11 cases (50%) and resulted in a biopsy from an alternative more accessible site in 7 cases (32%)

Conclusion:

The accuracy of the pre-scan clinical diagnosis varies depending on the condition and was 76% in suspected orbital pathology, while 23% with positive radiological findings had no clinical signs

In cases where orbital pathology is suspected to be secondary to systemic disease, whole body CT imaging if used judiciously, can result in biopsying the most accessible & appropriate site, minimising patient morbidity

---

Abstract Number: 544

Benign Reactive Lymphoid Hyperplasia presented with unilateral ptosis

Author: **Hatice Deniz Ihani**

poster presentation

Purpose:

To evaluate two patients presenting with ptosis in benign reactive lymphoid hyperplasia.

Methods:

The medical records of two patients with unilateral ptosis who were referred to Akdeniz University Ophthalmology Department were examined.

Results:

Conjunctival hyperemia and follicular hypertopia and upper eyelid edema and mechanical ptosis were seen unilaterally in both of the patients. Incisional biopsy were performed in both patients. The lesions were characterized by polyclonal lymphoid cell infiltration and pathological diagnosis were benign lymphoid hyperplasia. Systemic steroid treatment was performed and the lesions were disappeared in two months. Systemic analysis was performed and no lymphoproliferative diseases were found. The patients were decided to be examined 6-months periodically.

Conclusion:

Benign reactive lymphoid hyperplasia should be kept in mind in cases with acquired unilateral ptosis and careful inspection is essential for accurate diagnosis in such patients.

Link to PDF ePoster

Abstract Number: 545

Frontal sinus osteomas: a report of 2 cases.

Author: **Maria Dimitry**

poster presentation

Purpose:

This report compares the presentation, clinical features and management of two patients with a frontal sinus osteoma.

Methods:

Retrospective case note analysis including orbital imaging.

Results:

A 19yr old female complained of diplopia and ptosis. Examination revealed a right axial proptosis, restricted eye movements and choroidal folds. Imaging detected a 42 x 30mm right frontal sinus osteoma which extended into the right superior orbit, compressing the right superior rectus muscle. Surgical removal was via an external frontal osteoplastic flap.

Our 16yr old female patient presented with a 9 month history of headache, upper lid fullness and a change in appearance. A bony hard swelling was palpable in the supero-nasal orbit and the globe was displaced inferiorly. A 25 x 20mm ivory osteoma extending from the right frontal sinus into the orbit was revealed on imaging. Surgical management involved removal via an external frontoethmoidectomy using a Lynch-Howarth approach.

Conclusion:

Sino-orbital osteomas are usually small, asymptomatic incidental findings seen on radiological examination. Only approximately 5% of people with osteomas become symptomatic and require surgical intervention. Osteomas should be on the differential diagnosis for any patient, especially teenagers or young adults, presenting with signs and symptoms of orbital disease. Our cases demonstrate that the presentation and surgical management can vary depending on the location and extension of disease. Osteomas are associated with Gardner's syndrome and patients should be screened for a chromosome 5 defect.

Link to PDF ePoster

Abstract Number: 546

A proposal for a gold standard multidisciplinary orbital trauma pathway

Author: **Stacey Strong**

poster presentation

Purpose:

There are currently no gold standards for the documentation of orbitofacial fractures. In 2012, a regional trauma centre audit found locally recommended documentation to be lacking. A trauma pro forma was introduced, multidisciplinary meetings established and a more robust referral system created between maxillofacial and ophthalmology departments. This audit reviewed if documentation had improved since the introduction of these changes.

Methods:

Of 65 orbitofacial fracture patients presenting to A&E between 02/2012–04/2013, 43 files were located. Locally recommended documentation criteria at baseline and 2 weeks post-operative included: subjective symptoms, visual acuity, colour vision, swelling, conjunctival assessment, lid position, globe position, enophthalmos, extra ocular movements, pain on extra ocular movement, watering and diplopia. Six-month documentation criteria included enophthalmos and diplopia alone. Surgical patients achieved 100% compliance if they fulfilled all 26-point criteria. Non-surgical patients required only 14-points.

Results:

On average, surgical patients completed 9 out of 26-point criteria (34.6%). Non-surgical patients averaged 6 out of 14-points (42.9%). Nineteen patients did not attend one or more appointments and 8 patients were discharged by 4 months. Weak documentation included: watering, lid position, globe position and pain on extra ocular movement. Strong documentation included: visual acuity, extra ocular movements and diplopia

Conclusion:

Overall documentation was found to be lacking. We propose a gold standard of 26-point (surgical) and 14-point (non-surgical) criteria. We will introduce a patient "orbital trauma" pathway booklet including these gold standards and re-audit in April-July 2014

Link to PDF ePoster

Abstract Number: 547

A Case Of Spontaneous Superior Ophthalmic Vein Thrombosis

Author: **Princeton Wen-Yuan Lee**

poster presentation

Purpose:

To present a case of spontaneous superior ophthalmic vein thrombosis (SVOT) in an ex-intravenous drug user and the management of this rare condition.

Methods:

A case discussion and literature review of the causes, investigation and management of SVOT is to be presented

Results:

A 41 year-old male prisoner presented with severe progressive headache, left retrobulbar pain & proptosis with mild visual compromise. He was found to have left superior ophthalmic vein thrombosis on CT venogram. There was no radiological or clinical evidence of orbital cellulitis. All paranasal sinuses on the contralateral side were opacified suggesting sinusitis (the ipsilateral sinuses were all clear). The white cell count and ESR were elevated but blood cultures and septic screen were negative and patient remained apyrexial. CT scan of the neck showed a left hypoplastic internal jugular vein. Thrombophilic screen were negative. Deep vein thrombosis had been ruled out on numerous occasions in the past.

He was treated with broad-spectrum intravenous antibiotics, low molecular weight heparin and a right sinus washout. His vision returned to 6/6 from 6/9.5 at presentation and the range of eye movement improved. He is receiving a six months course of warfarin anticoagulation.

Conclusion:

We report a case of spontaneous superior venous thrombosis with no direct source of localized or systemic infection and no thrombophilic risk factors. His complex social history posed a challenge in diagnosis and clinical management.

Link to PDF ePoster

Abstract Number: 549

Xanthogranuloma of orbit: A case presentation and review of the literature

Author: **Aruna Dharmasena**

poster presentation

Purpose:

Adult orbital/adnexal Xanthogranuloma is poorly understood. The rarity of this disease precludes prospective investigation or meta-analysis, making the evaluation of safety and efficacy of existing and new treatment modalities extremely difficult and much of the knowledge on this rare disease entity is based on previously reported case series. In this paper the authors report another case of orbital Xanthogranulomas and discuss their experience on the management of a this previously unreported patient.

Methods:

Case report and review of literature.

Results:

A 63 year old man presented with a 1 year history of left epiphora, ptosis, left upper lid skin yellow discolouration. He suffered from adult onset asthma, diet controlled type II diabetes, angina and biopsy proven chronic prostatitis. There was a left partial ptosis, impaired upgaze, hypoglobus and a palpable mass in the left upper lid

subcutaneous tissue. It extended into the supero-nasal orbit. CT scan revealed an ill-defined inflammatory stranding within the left orbit, predominantly of the anterosuperior extraconal compartment suggestive of a chronic nonspecific inflammatory process. Biopsy showed replacement of orbital adipose tissue by collagenous tissue containing extensive sheets of bland fomy macrophages and patchy lymphoid aggregates.

Conclusion:

Given the history of adult onset asthma this case of orbital Xanthogranulomas most certainly belong to the subgroup adult onset asthma and periocular xanthogranuloma (AAPOX). Several treatments including oral/intra lesional steroids, metotrexate, cyclosporine, radiation, immunotherapy, laser application and surgery have been proposed. A high degree of clinical suspicion is required to identify this rare disease.

Link to PDF ePoster

Abstract Number: 550

Inferior ophthalmic vein thrombosis following insertion of acrylic orbital implant

Author: **Morag Adams**

poster presentation

Purpose:

A 44 year old female patient presented with a severely painful left orbit several weeks following evisceration and insertion of acrylic 20mm orbital implant.
On clinical examination, no evidence of local orbital infection or extrusion of implant were identified. MRI orbits with contrast revealed an inferior ophthalmic vein occlusion, best visualised with fat suppression in axial and coronal planes.

Methods:

N/A

Results:

N/A

Conclusion:

The patient was initally managed conservatively, with appropriate levels of analgesia and kept under close review. Haematological investigation for infection, inflammation and pro-thrombogenic factors proved negative.

Orbital pain levels persisted, without improvement after 5 months, which led to the decision to remove the implant under a general anaesthetic. A normal acrylic implant with healthy, non-infected tissue was visualised at the time of surgical removal.

The patient's reported pain improved following this procedure, which correlated with images from repeat MRI orbits which confirmed reduction in the calibre of inferior ophthalmic vein. (*Additional MR angiography orbits currently awaited).

To our knowledge, isolated thrombosis of inferior ophthalmic vein following insertion of acrylic orbital implant is not reported in the literature.

Link to PDF ePoster

Abstract Number: 551

Orbital Schwannoma : Difficulty in diagnosing owing to its different manifestations.

Author: **Nazila Ahmad Azli**

poster presentation

Purpose:

To report three histopathologically confirmed cases of orbital schwannoma which manifest differently.

Methods:

Case series.

Results:

Case 1 : A 50 year-old male with a right progressive proptosis associated with blurring of vision. Clinically, there was a right axial proptosis with positive retropulsion. Right mild RAPD was present and right optic disc was hyperaemic. Magnetic resonance imaging of the orbit revealed a right intraconal cystic lesion with fluid level, displacing the superior rectus and optic nerve.

Case 2 : A 63 year-old female with a left lower lid mass which was painless and increasing in size. An earlier incisional biopsy done elsewhere but result was unknown to her. Her left eye was hypertropic and non-seeing. Her left extraocular movement was restricted. Computed tomography of the orbit revealed a significantly large left lower lid well-defined firm mass with no bony lytic lesions

Case 3 :An 80 year-old female presented with a brief history of right eye protrusion, associated with blurring of vision. There was no history of trauma. There was a family history of colonic carcinoma. Her right eye vision was no perception to light. There was a right non-axial proptosis, marked RAPD and limited extraocular movements. Computed tomography of the orbit showed a right well-defined mass, non-enhancing and occupying the superomedial part of the orbit and extended posteriorly to involve the orbital apex.

Conclusion:

Schwannomas are rare periorbital & orbital benign tumours with variable anatomic & pathologic features. Combination of clinical, imaging and surgical features may be helpful in making a diagnosis of schwannoma. Benign in nature, it does have the propensity to become malignant.

Link to PDF ePoster

Abstract Number: 552

Subdural Hygroma Presented As Ipsilateral Swollen Eyelids and Proptosis: a Case Report

Author: **Georgios Agorogiannis**

poster presentation

Purpose:

To present an unusual case of subdural hygroma in a 13-year old male with progressive eyelid swelling and proptosis.

Methods:

A 13-year old boy was referred urgently to the Ophthalmology Department with a ten-day history of swelling of his left eyelids and progressive ipsilateral proptosis. No history of head trauma was reported. Over the previous 10 weeks he had complained of migraine-type headaches, that did not improve with painkillers. In the last 5 days he

complained of diplopia, blurring of vision, tinnitus on the left ear and difficulty walking. Examination revealed a left hypertropia & papilloedema.

Results:

Urgent neuro-imagining of head and orbits revealed a subdural hygroma. It was treated in the local tertiary hospital initially with burr-hole evacuation of the subdural hygroma and fenestration of the arachnoid cyst. After the first operation he deteriorated and underwent insertion of a cyst peritoneal shunt.

Conclusion:

Subdural hygroma is a rare diagnosis especially in patients without a history of head trauma, and is an unusual cause of papilloedema. Neuro-imagining is of great importance to establish the diagnosis and plan the suitable therapeutic approach.

Link to PDF ePoster

Abstract Number: 553

Malignant solitary fibrous tumour: a management dilemma

Author: **Anupma Kumar**

poster presentation

Purpose:

To present the clinical details, radiological and histological features and management challenges of a patient with malignant orbital solitary fibrous tumour (SFT).

Methods:

A retrospective case review.

Results:

A 68 year old female presented with marked proptosis and hypoglobus with reduced vision over the previous few months. MRI scan showed a large well-defined postero-superior extraconal orbital mass extended into the apex. CT scan showed marked thinning and deficiency of the posterior orbital roof. Old photos, clinical and radiological features were consistent with a longstanding benign orbital mass with recent progression and visual compromise. The patient underwent neurosurgical /orbital surgery with a pterional approach. The tumour was highly friable and removed piecemeal. A small residual frill of tumour was left behind at the orbital apex to avoid optic nerve damage or superior orbital fissure syndrome. The patient made an excellent recovery with improved vision and facial symmetry.
After some debate histopathology confirmed the diagnosis of SFT with malignant features. Complete surgical excision would have necessitated extensive destructive potentially debilitating surgery. After detailed discussions with both patient and colleagues a plan to observe closely was agreed. A 6 month surveillance scan shows no progressive tumour and the patient remains well.

Conclusion:

Reports of malignant orbital SFTs are extremely rare and these lesions seem to behave less aggressively in comparison to SFTs in other locations. They are relatively chemo and radio-resistant and so complete surgical excision is recommended. However this case highlights the need to tailor radical treatments on an individual basis.

Link to PDF ePoster

Abstract Number: 554

Noninvasive classification of orbital tissue pathology based on texture parameters from contrast-enhanced magnetic resonance images

Author: **Tom Fearnley**

poster presentation

Purpose:

To demonstrate a proof of concept that quantitative texture feature analysis of contrast-enhanced magnetic resonance imaging of orbital tissues can be used to produce a unique footprint for a variety of orbital disease processes as an adjunct to histology as a reference standard

Methods:

We used the MaZda software program to perform quantitative texture analysis of magnetic resonance images of a variety of orbital structures to demonstrate that a unique histogram footprint is produced. MaZda is a publicly available, free software program that computes texture analysis parameters for MRI images by mathematically summarizing the signal intensity of pixels within a chosen region of interest. A number of histologically confirmed disease processes generate a characteristic histogram appearance. Such software could therefore be used as a useful noninvasive classification method for orbital disease processes when used as an adjunct to a radiological opinion and histology as the reference standard. The ready access to picture archiving and communicating systems now allows ophthalmologists to review MRI images long before a formal report has been generated. With increasing pressure on our radiology colleagues in terms of turnaround times for scan reports this software tool may facilitate more rapid active intervention. It may also prove to be useful in cases of indeterminate histology or where achieving a tissue diagnosis is technically challenging and poses a high risk of iatrogenic morbidity

Results:

The MaZda quantitative texture analysis software produces characteristic histograms for a variety of orbital pathologies. These histograms can be used with a predictive value by observers blinded to the histological diagnosis

Conclusion:

This study shows proof of concept that classification of orbital tissue pathology is possible by applying quantitative texture analysis to contrast enhanced MRI. Further studies are needed to produce a larger reference frame of histograms in histologically confirmed disease

Link to PDF ePoster

---

ePoster presentations - Lacrimal

Abstract Number: 555

The Results of Silicone Tube Intubation in Canalicular Injury

Author: **Gokhan Kaya**

poster presentation

Purpose:

The aim of this study was to analyze functional and anatomical success of silicone tube intubation in canalicular injury caused by blunt or penetrating trauma.

Methods:

The records of 24 patients with canalicular injury, who applied to our clinic, were retrospectively analyzed. The patients were divided into two groups according to the type of injury (group 1: 12 patients with blunt injury, group 2:14 patients with penetrating injury). In all cases, silicone tube intubation was performed with a pigtail probe. The age, gender, cause of injury, affected eye, affected canalicula, time period between injury and operation, removal time of the silicone tube, and follow-up periods of the patients were recorded. An open passage with lacrimal irrigation was evaluated as anatomical success and absence of tear collection at fluorescein dye disappearance test and tearing complaint by the patients were accepted as both anatomical and functional success.

Results:

There were not significant differences between the groups by means of gender, affected canalicula, time period between injury and operation,removal time of the silicone tube, and follow-up periods ($p>0.05$).Two patients in group 1 and four patients in group 2 had tear collection at fluorescein dyedisappearance test and tearing complaint. In the first group, anatomic success was 95% and both anatomical and functional success was achieved in 91%of patients. In the second group, these rates were 90% and 84%, respectively. Success rates did not differ significantly between the two groups ($p>0.05$).

Conclusion:

Annular silicone tube intubation may be used as a successful technique in maintaining anatomical and functional integrity of the canalicula after blunt or penetrating canalicular injury.

Abstract Number: 556

Lacrimal gland stone expulsion secondary to vomiting

Author: **Edward Casswell**

poster presentation

Purpose:

To report a case of a 36-year-old woman who spontaneously expelled a lacrimal gland stone secondary to vomiting

Methods:

Case notes review

Results:

A 36-year-old presented with a 3 day history of a red left eye associated with purulent discharge. She was initially diagnosed with dacroadenitis and started on oral co-amoxiclav. As a result of the antibiotics, the patient unfortunately suffered an episode of vomiting during which she felt something protruding from her lateral orbit. She subsequently expelled what appeared to be a hard stone from her lacrimal gland, a process she was able to capture on her smartphone. Subsequent CT orbits showed an enlarged lacrimal gland with intra-ductal gas, suggestive of an abscess. The patient completed a course of antibiotics and has now made a full recovery. Lacrimal gland stones are rare and this is the first case we are aware of in which one was seemingly spontaneously expelled rather than surgically excised.

Conclusion:

Surgical removal of lacrimal gland stones may not always required as they could potentially be spontaneously expelled. This case also highlights the role of patients' smartphones as a diagnostic aid.

Link to PDF ePoster

Abstract Number: 557

Monocanalicular Nasolacrimal Duct Intubation: A suitable alternative to dacrocystorhinostomy?

Author: **Ankur Raj**

poster presentation

Purpose:

Monocanalicular stents have several advantages over bicanalicular stents for nasolacrimal duct intubation (NLDI), including reduced risk of cheese wiring, easier removal and being left in-situ indefinitely. We aimed to determine symptomatic relief in patients who underwent nasolacrimal duct intubation (NLDI), with a monocanalicular stent (monoka grande), for the treatment of epiphora secondary to nasolacrimal duct obstruction (NLDO)

Methods:

Single centre, retrospective review of case notes of subjects undergoing NLDI between June 2011 and July 2013. Primary outcomes were determined to be subjective improvement of epiphora and need for further intervention. A sub-analysis of associated risk factors was performed

Results:

A total of 18 eyes of 15 patients are included. Mean follow up was 9.2 months (range 3-23 months). Functional success was achieved in 67% with no further intervention. Subjects who failed were older (mean age 67 years vs 55 years); had previous surgical intervention, excluding DCR, for epiphora (50% vs 8%); had inflamed nasal mucosa peri-operatively (66% vs 42%); and had earlier removal of tube (2.4 vs 4.7 months). The two groups did not vary in duration of symptoms. There was one case of post-operative corneal abrasion.

Conclusion:

NLDI with a monocanalicular stent may be a suitable treatment approach for a carefully selected subset of patients with epiphora secondary to NLDO. Prophylactic treatment to reduce nasal mucosa inflammation and leaving the stent in-situ for greater duration may offer better success.

Link to PDF ePoster

Abstract Number: 558

Survey of current trends in Dacryocystorhinostomy

Author: **Tsong Kwong**

poster presentation

Purpose:

Dacryocystorhinosotomy (DCR) surgery has been traditionally performed via an external approach under general anaesthetic (GA) for the treatment of primary acquired nasolacrimal duct obstruction (PANDO). Endoscopic DCR has been constantly refined, with recent studies showing success rates similar to the external method. Potential advantages of endonasal DCR, in addition to scar avoidance, include a possible increase in local anaesthetic (LA) day case procedures.
The aim of this survey is to identify the current DCR surgical practice in the UK regarding commonest surgical approach, preferred mode of anaesthesia and day case rate.

Methods:

An online questionnaire was sent to 120 lacrimal surgeons in the UK listed on the British Oculoplastic Surgery Society (BOPSS) website.

Results:

62 questionnaires were returned (51.6%). Over 70% performed the majority of primary DCR surgery via external approach, with 50% almost exclusively undertaking external DCR's. Approximately 15% most commonly used LA for external DCR's, whereas only 6% avoided using GA for the majority of endonasal DCR's. For external DCR cases, only 4 percent of surgeons routinely planned an inpatient stay, compared to 2% for patients having the endonasal DCR's.

Conclusion:

This survey shows that UK surgeons with a special interest in lacrimal surgery, currently still prefer the external approach, though there is a significant proportion (20%) routinely favouring primary endonasal DCR. The vast majority of external and endonasal DCR procedures are still performed under GA, but interestingly LA use is much commoner for external DCR. Overall there has been a switch to predominantly day case DCR surgery with the proportion of surgeons routinely requiring inpatient stays being low for both groups.

Link to PDF ePoster

Abstract Number: 559

Primary punctoplasty and the role of dacryoscintigraphy

Author: **Thomas Jackson**

poster presentation

Purpose:

To report outcomes of primary punctoplasty in eyes with epiphora secondary to punctal stenosis and the role of dacryoscintigraphy

Methods:

Retrospective review of all punctoplasties between Feb 2007 and Jan 2013

Results:

87 eyes of 50 patients underwent 3-snip punctoplasties during this period. 79% of eyes were female and the mean age was 64 years (range 19-89 years)

76% of eyes had an improvement in symptoms. 5% had early cicatrisation requiring repeat surgery

21 eyes had no improvement in symptoms. 12 then underwent dacryoscintigraphy (2 normal drainage, 6 post-sac delay, 4 pre-sac delay) and 4 underwent CTDCG (all showed nasolacrimal duct obstruction (NLDO)). Those with pre-sac delay had lid laxity and were offered lid tightening surgery, those with post-sac delay or NLDO were offered DCR, those with normal drainage were treated for blepharitis

The remaining 5 eyes did not undergo further imaging. 2 were treated for blepharitis and 2 were offered lid tightening. The final patient had crocodile tears associated with a previous 7th nerve palsy and underwent botulinum toxin A injection of the lacrimal gland

All eyes undergoing further treatment had resolution of symptoms

Conclusion:

Punctoplasty is a simple procedure with a success rate of 76% in our series. Punctal stenosis is often associated with blepharitis and lid laxity and it is important to fully address these at the same time to maximise the chance of success

In patients whose symptoms fail to improve after punctoplasty, dacryoscintigraphy is useful to decide if there is pre or post-sac delay. Those with pre-sac delay may benefit from lid tightening, those with post-sac delay may benefit from DCR surgery and those with normal flow are unlikely to improve with further surgery

---

Abstract Number: 560

Characterisation of the Lacrimal Punctum using Spectral Domain Anterior Segment Optical Coherence Tomography

Author: **Hannah Timlin**

poster presentation

Purpose:

To improve our anatomical knowledge of the normal healthy punctum in physiological conditions by using Optical Coherence Tomography(OCT), an imaging technique novel to the lacrimal system.

Methods:

22 inferior puncta from 11 healthy volunteers had been imaged using Anterior Segment Spectral Domain OCT. Qualitative characteristics and quantitative data were analysed.

Results:

The punctum required gentle eversion by rolling a cotton bud placed inferior to the punctum.
OCT images reveal three layers of tissue presumed to be; epithelium, substantia propria and orbicularis. The epithelium extended from the surface of the lid down into the punctum showing variation in thickness from person to person with a mean of 70µm (SD 19, range 41 to 141). The second layer of tissue was hyperreflective and thicker in comparison to the epithelium. The deepest visible layer was hyporeflective compared to the middle layer with an irregular interface between the two.
The medial wall of the punctum showed a graduated, curved approach to the internal punctum suggestive of a papilla. In comparison, the lateral wall showed a more acute angled approach without evidence of a papilla.
The mean external punctal opening size was 615µm (SD 136, range 410 to 872) and the mean internal opening size was 18 µm (SD 30, range 0 to 99). At a depth of 500µm the majority of puncta were closed (64%). A fluid level was visible inside 18 puncta. It was not possible to visualise the horizontal canaliculus. Whilst an ampulla has been described in cadaveric dissections, there was no evidence of subpunctal dilation in vivo.

Conclusion:

OCT can be used to image and measure the lacrimal punctum and the surrounding tissue layers.

Link to PDF ePoster

Abstract Number: 562

Pearls of Epiphora: “Tears are not always as clear as they seem”

Author: **Tejal Patel**

poster presentation

Purpose:

Two unusual oculoplastic cases presenting with epiphora, which lead to diagnoses of; case 1: low grade B cell non-Hodgkin's lymphoma and case 2: inverted papilloma.

Methods:

Case reports.

Results:

Case 1: 55-year-old lady presented with an 18-month history of right epiphora. She gradually developed a poorly defined, smooth, non-tender, fleshy grey mass at the right inner canthus, with no ulceration. Probing and syringing revealed obstruction in the right eye. An MRI scan of the orbit confirmed a lacrimal sac mass involving the medial aspect of right orbit. Thereafter, right anterior orbital biopsy was performed diagnosing low grade B cell Non-Hodgkin's Lymphoma (probable Mucosal Associated Lymphoid Tissue). The patient received a course of radiotherapy to the right eye. Staging CT elicited the lymphoma was stage 1 and limited to the right orbit.

Case 2: 51-year-old gentleman presented with a 3-year history of epiphora and swelling over the right medial canthus. On examination a right mucocele and lower lid punctual stenosis was found. The patient underwent a dacrocystorhinostomy and septoplasty and a biopsy was sent from the lacrimal sac tissue and O'Donohue silicone tubes passed. It was determined that the mass was an inverted Schneiderian papilloma with exophytic growth. There was no evidence of dysplasia or malignancy.

Conclusion:

Epiphora is a fundamental symptom that patients commonly present with in eye clinic. Causes can include ocular irritation and inflammation or obstruction of the lacrimal system.
These two cases illustrate the importance of considering malignancy and other benign causes of epiphora. Such cases require acknowledgement, as early detection and multidisciplinary care will ensure timely management and treatment.

Link to PDF ePoster

Abstract Number: 563

Is CT Dacryocystography a worthwhile investigation?

Author: **Amy-Lee Shirodkar**

poster presentation

Purpose:

CTDCG assesses the anatomy of the lacrimal drainage system. The aim of this study IS to assess the value of CTDCG with lacrimal syringing for patients undergoing Endonasal Dacryocystorhinostomy(DCR).

Methods:

Retrospective study of patients presenting to an Ophthalmology unit in North Wales with epiphora during 2003 to 2013. 82 patients with lacrimal duct obstruction were referred to ENT for CTDCG and DCR. Proximal obstruction = no passage of contrast past the lacrimal sac on CTDCG. Distal obstruction = contrast filling the lacrimal sac but did not enter the nose on CTDCG. Patent if saline passed to throat or contrast in nose on CTDCG.

Results:

Radiology reports, Ophthalmology and ENT notes were obtained for 28 eyes of 21 patients. Mean age 65.95 years (range 47-89), 24%male. Presenting with symptoms of epiphora for mean 38months,29% bilaterally. 10% had a

change in symptoms when seeing ENT. Mean time between Ophthalmology review and DCR was 12.4months. 19% required additional surgery including septoplasty or sinus surgery. 5(24%) had sinus disease on DCG. DCG agreed with 72% of 25 eyes with a SWO obstruction. 3 further found on DCG of which 2 were operated on. DCG agreed with laterality of symptoms in 71%. Agreement between DCR side and obstruction on: SWO was 64%; 71% with DCG and 90% with presenting symptoms.
2(10%) suspicious lesions biopsied returned as no malignancy. Mean follow up 31.5months from Ophthalmology review to final follow up, 19% required revision. 10(48%) patients observed an improvement in symptoms at final follow up.

Conclusion:

CTDCG identified 2 further obstructions compared to SWO that underwent DCR. Greatest agreement between which eye is finally operated on is with presenting symptoms.

Link to PDF ePoster

Abstract Number: 564

An illuminating case of a hard to find cause of blood in the tears

Author: **Ebube Obi**

poster presentation

Purpose:

Haemolacria is a rare feature of some diseases of the conjunctiva, eyelids, lacrimal gland and lacrimal sac. Although diagnosis of the source of blood in the tear film is often straight forward, it is important to be aware of rare causes.

Methods:

We present a unique case of haemolacria diagnosed by clinical means when radiological investigations were non-contributory.

Results:

A 22 year old female, presented with intermittent profuse bleeding from her left eye (Fig 1) and nose, three years after an accidental glass injury to her face. A firm lump in the region of her left medial canthus had been put down to scar tissue (Fig 2) and both a plain facial radiograph and orbital MRI scan revealed no abnormality. However transillumination strongly suggested a glass foreign body (Fig 3) which during removal was found to be a long fragment of glass parallel to the left lateral wall of her nose and penetrating her lacrimal sac (Fig 4). Following removal she remains free of symptoms

Conclusion:

Although rarely used, transillumination should not be overlooked as a useful clinical examination technique. We discuss the clinical indications for transillumination and review the literature for the causes of haemolacria.

Link to PDF ePoster

Abstract Number: 565

Rare case of mixed squamous transitional cell carcinoma of the lacrimal sac

Author: **Abhirami Devi Mohanasundram**

poster presentation

Purpose:

To report a case of lacrimal sac carcinoma

Methods:

CASE REPORT

Results:

A 72 year old Chinese gentleman presented with complaints of a gradually progressive swelling over the left lacrimal sac region for the past 3 years associated with epiphora.There was no history of discharge,bloody tears,epistaxis,acute dacrocystitis and sinonasal disease before or after the onset of swelling.
On Examination:
There was a palpable firm to hard mass measuring approximately 3cm x 2cm in size.It was non-tender and situated in the left lacrimal sac area.Skin overlying it was mobile and free from the underlying mass.The lesion was not extending above the medial canthal tendon and regurgitation on pressure over the lacrimal sac was negative.
On syringing,it was freely patent.There was no proptosis and restriction of extraocular muscles.
Patient had a history of biopsy of swelling done at a private hospital 3 years ago and was told it was a benign lacrimal sac tumour.
Magnetic resonance imaging (MRI) Brain/Orbit done on the 30/10/13 showed a left medial orbit lesion which was extraconal and may be related to the frontal ethmoid air cells,anterior nose or medial orbit.
Chest x-ray did not show any lung metastasis.
Initially,patient was under the Ear,Nose and Throat (ENT) follow up till December 2013.
Biopsy from the left middle meatus was done and while awaiting the histopathological report (HPE), he was referred to the Oculoplasty team.
2 months later, patient was planned for biopsy and excision of the left lacrimal sac tumour under Oculoplasty and ENT.
Intraoperatively,the left lacrimal sac tumour was found superolaterally till the floor of left orbit.Medially,it extended till the lacrimal bone and inferiorly it extended breaching the superior wall of the maxillary sinus.
The lacrimal sac tumour was identified and dissected but the capsule broke and the tumour was removed in pieces.
1 week later,histopathology report (HPE) of the left lacrimal sac biopsy showed an invasive carcinoma consistent with mixed squamous transitional cell type.
Histopathology report (HPE) of the left middle turbinate biopsy showed an inflammed benign polyp.
Currently,patient has been planned for radiotherapy with monthly follow up under Oculoplasty to rule out recurrence of the carcinoma.

Conclusion:

It is important to consider all lacrimal sac tumours as malignant untill proven otherwise by histology.
These lesions require aggressive treatment and life long follow up in view of high chances of recurrence.

Link to PDF ePoster

Abstract Number: 566

Epiphora due to lacrimal drainage system metastasis from colorectal adenocarcinoma.

Author: **yusuf uysal**

poster presentation

Purpose:

Epiphora due to lacrimal drainage system obstruction from metastasis occures rarely. Our aim is to present a case who has a history of colorectal adenocarcinoma and the first sign of metastasis is epiphora.

Methods:

We have reviewed the medical records of a patient who complaints of epiphora due to lacrimal drainage system obstruction from colorectal carcinoma metastasis.

Results:

A 73- year-old man presented with a 3-month history of epiphora in the left eye. One week before presentation, diplopia and decrease in vision in the left eye had developed and then the patient had been sent to our departmen for further evaluation and treatment. On the examination, visual acuity of patient was 0.3 in the left eye and 0.8 in the right eye. Gaze restriction was noted in the left eye. Slight conjunctival hyperemia and telangiectasia on the medial part of lower eyelid were seen. There was slight edema on the medial canthal region. Computerized tomography showed medial orbital mass lesion invading lacrimal drainage system. Patient had a history of colorectal adenocarcinoma for 4 years. Histopathologic examination of material taken from this lesion was compatible with metastatic adenocarcinoma. Body images were taken and radiologic images showed renal metastasis. Radiotherapy and chemotherapy were scheduled.

Conclusion:

Epiphora may be the first sign of lacrimal drainage system metastasis. Clinicians should consider in mind this condition during evaluation of a patient with epiphora especially in patients with history of malignancy.

Link to PDF ePoster

---

ePoster presentations - Socket / Misc

Abstract Number: 567

Amniotic Membrane Transplantation in malignancy involving the conjunctiva

Author: **Varajini Joganathan**

poster presentation

Purpose:

The clinical features, treatment and outcomes of three patients with amniotic membrane transplantation (AMT) following conjunctival excision of malignancy are discussed.

Methods:

A retrospective case series

Results:

Two patients (Cases 1 and 2) with histological proven squamous cell carcinoma of the upper lid and involvement of forniceal conjuctiva and a patient with large bulbar conjunctival amelonitic melanoma (Case 3) underwent wide surgical excision and AMT. The grafts were sutured to cover the conjunctival defect. In addition, 3 cycles of topical Mitomycin 0.04% was used in patients (Cases 2 and 3). Triple thaw cyotherapy was also carried out in case three. Good surgical healing of lid was achieved with no tumour recurrence in Cases 1 and 2. There was rejection of AMT within a year in all three cases. Case 1 and 3 required a buccal mucosa graft to allow satisfactory surgical outcome and healing.

Conclusion:

This case series suggests that AMT might yield better outcome with smaller cojunctival defects and a better role for mucous membrane grafts in repairing larger defects, in particular involving the fornix or palpebral conjunctiva.

Link to PDF ePoster

Abstract Number: 568

Eviseration/Enucleation Audit

Author: **Rishika Chaudhary**

poster presentation

Purpose:

The goal of evisceration and enucleation surgery should be to give the patient a comfortable socket with a functionally and cosmetically acceptable prosthesis. Long-term complications can arise some years after surgery. We audit all aspects of the surgical pathway including patient perspective.

Methods:

Retrospective data collection from May 2007 to Nov 2012 gave us a total of 34 procedures performed. Data was available for 25 patients. Data collection included: procedure, indication for surgery and complications. SurveyMonkey® was used to create an automated telephone questionnaire to look at patients' perspective.

Results:

There were 7 females and 18 males, aged between 17 and 92. 2 enucleation and 23 evisceration procedures were performed. The most common (44%) indication for surgery was trauma. There were no intraoperative, 3 early (within 6 weeks post-op) and 2 late complications.

The response rate of the questionnaire was 43.5%. 81.8% of patients wore an artificial eye. 36.4% rated their comfort as good; 45.5% had occasional discomfort; 9.1% had significant discomfort. 50.0% stated that they had complications after surgery and 30% had no complications. 50% rated function of their eye socket as good and the other 50% rated this as acceptable. Cosmetically, 50% were extremely satisfied with the results; 20% were satisfied and 30% found it acceptable.

Conclusion:

The data is limited due to the rarity of the procedure. The results do reflect a good surgical outcome. The overall complication rate of 10% is comparable to standards in previous studies. Results reflect a discrepancy between actual documented complications and the patients' apparent perception of complications. The complications were treated and all patients have now been discharged.

Link to PDF ePoster

Abstract Number: 569

Two week wait in adnexal oncology: achieving the target but not the purpose

Author: **Vijay Wagh**

poster presentation

Purpose:

In 2000 the Two Week Wait Referral Pathway (2WW) was introduced into the United Kingdom in order to decrease the waiting times and improve survival rates of patients with suspected cancer. However, concerns have been

raised since it was implemented on whether the measure is actually having the desired effect. In this context, we have undergone a retrospective review of patients seen in our adnexal department under the 2WW pathway to determine if the targeted waiting time is being achieved and the accuracy of the GP referrals.

Methods:

Retrospective case notes review of 32 patients referred from their GPs through the 2WW pathway to the adnexal department at Moorfields Eye Hospital from March 2012 to February 2014. The date of GP referral, date of clinic appointment and diagnosis were recorded.

Results:

The mean waiting time was 8.6 days (range 2-14, SD: 2.9) with 2WW target achieved in 100% of cases. From the 32 patients only 5 (15.6%) were diagnosed as cancer, 23 (72%) had a non-cancer diagnosis, 3 (9.4%) were still under investigation when the study finalized and 1 (3.1%) did not attend to the clinic appointment. The most commonly misdiagnosed pathologies between the 28 cases that had a definitive diagnosis were blepharitis related chalazion and papilloma (42.8% altogether) that resolved appropriately after treatment.

Conclusion:

Although our oncology unit is achieving the 2WW target, there is a marked lack of accuracy in the GP referrals. Although this might be related with the 2WW being used to expedite appointments more than a lack of knowledge, we propose continuing medical education (CME) in lid oncology as key for GPs to have a better understanding of the alarm signs related with malignancy of the lesions.

Link to PDF ePoster

Abstract Number: 570

Slit lamp dermatoscopy

Author: **Pouya Alaghband**

poster presentation

Purpose:

We have employed an innovative and non-invasive technique to improve the definition of the features and borders of periocular skin lesions in oculoplastic practice.
There are two components to the reflected light from skin: regular reflectance (glare) and light backscatter. The regular reflectance contains visual cues to the texture of skin; whereas the backscatter light reveals the pigmentation, vascularisation, erythema, infiltration and other intra-cutaneous structures. The use of cross-polarized light separates two components of the light from tissue reflectance and is employed in devices commonly known as dermatoscopes.

Methods:

We have utilized the Nikon circular polar filter (52 millimetre) as a handheld lens for use with a slit lamp. In addition, we have employed the same filter on our digital cameras to improve the quality of clinical photography in our department.
To demonstrate the value of this technique, we have selected 20 different types of common oculoplastic skin lesions. They were examined and photographed with and without circular polarization.

Results:

We have compared the details of the polarised and regular images of each lesion. There was a striking difference in the appearance of skin when it was imaged with polarised light as opposed to standard images. This method especially enhanced the internal characterisation of the tissue. Furthermore, it improved visualisation of

pigmentations and borders of each lesion prior to intervention.

Conclusion:

We encourage and advocate the further use of dermatoscopy in oculoplastic clinical practice. Potentially this will improve the diagnosis and surgical planning of periocular skin lesions. Our technique is easy to introduce and represents excellent value for money.

Link to PDF ePoster

Abstract Number: 571

A new technique in evisceration

Author: **Simon Rogers**

poster presentation

Purpose:

To describe a new modification to the technique of evisceration that allows for placement of a large implant, along with a double scleral layer closure without division of the posterior sclera.

Methods:

After evisceration of the uveal contents, rectangular, mobile, scleral flaps still attached to the medial and lateral rectus muscles are created. A porous polyethelene implant of appropriate size is chosen to maximize orbital volume replacement. The superior and inferior scleral flaps are sewn over the implant. Then the mobilized medial and lateral scleral flaps, vascularized by their rectus muscle attachments, are overlapped by 2-3mm and sewn over the anterior surface of the implant. The superior and inferior edges of these advanced flaps are tacked down to the underlying superior and inferior scleral flaps. Tenon's capsule and conjunctiva are sutured in separate layers. A conformer of appropriate size is inserted.

Results:

The paper will include photos and illustrations of the technique with some provisional data from cases performed. We will also discuss the potential benefits of this technique over other previously reported evisceration techniques.

Conclusion:

We feel that the long-term success of an evisceration is dependant on three factors: (i) Adequate intraorbital volume replacement, optimally with in the area of volume loss, (ii) Low-tension coverage of a suitable orbital implant in multiple layers, (iii) Maintenance of normal orbital anatomy by utilising dissection which is as minimally-invasive as possible. In this way the aim is to preserve maximal postoperative motility. The technique described in the paper addresses all of these factors and we recommend its use when performing evisceration.

Link to PDF ePoster

Abstract Number: 572

Which surgical dressing should I use?

Author: **Tsong Kwong**

poster presentation

Purpose:

Surgical dressings are commonly used in oculoplastic reconstructive surgery, not only in the periocular area but also at other sites including the periauricular, clavicular and gluteal regions. Dressings help to control postoperative bleeding, absorb exudates, ease pain and provide protection for newly formed tissue. Despite their importance doctors often have limited training in the selection or use of surgical dressings.
The purpose of this poster is to provide a useful and practical algorithm for clinicians to select the most appropriate dressing in any given clinical situation.

Methods:

A single paper questionnaire was sent internally to ophthalmologists working in the oculoplastic department at East Sussex Healthcare NHS Trust.
A dressing algorithm was created in collaboration with the local wound care nurse specialist.

Results:

The questionnaire response confirmed that no clinicians reported having formal teaching in surgical dressings. All agreed that an algorithm would be useful in helping to decide which dressings to use in different situations.
A surgical dressing algorithm was created using the following as selection criteria:
• Allergies (particularly to adhesives)
• Friability of surrounding skin
• Presence of exudates or bleeding
• Suspected presence of bacterial colonisation

Conclusion:

Appropriate surgical dressings have an important role in the promotion of healing of surgical wounds both periocularly and also from tissue donor sites. Knowledge can be limited in this area and therefore we have created a simple dressing algorithm based on certain patient and wound characteristics. The algorithm clarifies the decision making process and should be especially beneficial in the management of wound complications.

Link to PDF ePoster

Abstract Number: 573

primary localised conjunctival amyloidosis presenting as ptosis in a child

Author: **oral adil bekir**

poster presentation

Purpose:

conjunctival amyloidosis is a very rare disease that present in the middle aged adults,here we report an extremely rare case of primary localised conjunctival amyloidosis in a child. A review of medical English literature revealed nc previous reported
case in childhood (only one case of localised secondary conjunctival amyloidosis was reported in literature by Rodrigues in 1976,seconadry to squint surgery)

Methods:

A 13 year old female was presented with 4 month history of right ptosis ,the ocular examination was unremarkable apart from mild right ptosis.The patient was listed for ptosis repair under general anaesthesia. At the start of surgery eyelid was everted only to note giant tarsal papillae/ A biopsy was taken from that area/and local steroid injected into tarsal conjunctiva and surgery was abandoned. The patient was given topical steroid to use and postoperatively the ptosis was noticed to improve.

Results:

Biopsy showed clumps of amorphous pink staining material staining orange with congo red and on polarisation there was an apple green birefringence suggestive of amyloid. Following this the patient was referred to the national amyloid centre, where the patient further assessed ,it was concluded there that the amyloidosis was a localised one with no evidence of systemic disease. An immunohistochemical staining of amyloid deposits was performed.This was suggestive of AL amyloidosis . For the next two years the patient was seen regularly in the eye clinic and gradually waned off topical steroid and the improvement of the right lid ptosis was maintained. .

Conclusion:

It is important in cases of ptosis to evert the eyelid to check the palpebral conjunctiva as the ptosis can be mechanical
in nature

Abstract Number: 574

History of trauma causes the delay in diagnosis of neuroblastoma

Author: **yusuf uysal**

poster presentation

Purpose:

Neuroblastoma usually occures in the period of early childhood and can metastase to the orbit. Periorbital ecchymosis and proptosis are the most common ocular findings of neuroblastoma. Some situations like trauma can cause the delay in diagnosis. Our aim is to report a similar case and to remind the similarity of ocular findings of trauma and neuroblastoma

Methods:

Reviewing the medical records of patient with the diagnosis of neuroblastoma

Results:

A two-year-old boy presented with the complaint of left periorbital swelling and ecchymosis. Patient had a history of falling down and subsequent head trauma two months ago. Slight swelling had occured on the left side of head at that time. After three weeks of falling down, swelling had begun to increase and the patient was followed due to possible effect of trauma. Because of continuous increase in swelling, the patient was referred to our department. On the examination, ecchymosis on the upper eyelid bilaterally, subconjunctival hemorrhage, mild proptosis and gaze limitation on the left side were seen. After examination, possible diagnosis of neuroblastoma was made. Tomography of orbit showed a mass involving inferior temporal fossa and left orbit. There was destruction on the sphenoid and zygomatic bones.
On the left suprarenal gland, a mass was also detected. After bone marrow biopsy and biochemical investigation neuroblastoma was diagnosed. After chemotherapy, ocular findings subsided.

Conclusion:

In conclusion, due to the similarity of ocular findings, history of trauma can cause the delay in diagnosis of neuroblastoma. This case highlights that history of trauma may mask the underlying cause of periorbital ecchymosis and swelling.

Link to PDF ePoster

Abstract Number: 575

Phantom Eye Syndrome

Author: **Varajini Joganathan**

poster presentation

Purpose:

Phantom pain has been described following amputation of various organs. Eye pain and non pain stimulus arising from an anophthalmic socket remains poorly recognised.

Methods:

A retrospective case series of phantom eye syndrome (PES) and a review of the literature.

Results:

Case 1: A 40 year old man who underwent bilateral enucleation for familial exudative vitreal retinopathy. He has daily symptoms of intermittent foggy, yellow vision associated with flashing lights since his operation in both eyes. This is intermittently accompanied by a cold sensation inside both eyes. His symptoms give him immense comfort and he is happy to remain with symptoms.

Case 2: A 41 year old man who has right artificial eye following traumatic injury. For the past 30 years, he experiences intermittent, right socket numbness and desire to pinch his enucleated eye. This does not give him much discomfort or limit his daily activities. The patient attributed these sensations to be side effects of the trauma and eye surgery itself.

Case 3: A 52 year old man with left artificial eye since 2 years of age. He continues to have left dull eye pain, intermittent flashing lights and coloured patches. He had thought this was normal as doctors have never been able to explain his symptoms in the past. He reflects on these feelings being disturbing as a child.

Case 4: An 88 year old lady, who underwent enucleation of her left eye for rubeotic glaucoma, has daily dull left socket pain for two years. This limits her usual activities especially in the morning and has built coping strategies in place. Clinical examinations of her left socket, prosthesis were unremarkable.

Conclusion:

PES remains under recognised clinically and in the published literature. Patients and doctors may lack of awareness of the disease. Clinical priority to look for structural pathology at first instance might be contributory. Patients should be informed of this disease entity before eye removal and PES should be sought of on subsequent clinical evaluation. Various non-medical, non-surgical techniques have been proposed to alleviate phantom pain symptoms.

Link to PDF ePoster

Abstract Number: 576

Evisceration: A useful technique in the military trauma setting?

Author: **Rebecca Ford**

poster presentation

Purpose:

To highlight the merits of evisceration with orbital implant, compared to enucleation, as a preferred technique for removal of severely traumatised eyes in the field hospital setting, and to encourage educated debate on this topic.

Methods:

Relevant literature is reviewed in the context of military precedent.

Results:

Loss of an eye due to military trauma carries a distinct set of potentially severe psychosocial sequelae. Lack of early access to specialist services places these patients at extra risk of socket complications and poor cosmetic outcome. However, removal of severely injured eyes in war zones is often delayed due to the belief amongst military surgeons that the more complex procedure of enucleation is required to prevent sympathetic ophthalmia (SO). There is in fact no evidence to suggest that the choice of surgical technique for eye removal, rather than the nature of the trauma itself, actually impacts the risk of SO in the fellow eye. It is possible that any delay in removing highly disrupted uveal tissue may increase the risk of SO.

Conclusion:

Evisceration is a more straightforward procedure than enucleation and can be taught to non-oculoplastic specialists. Evisceration with a simple orbital implant can be performed in a field hospital setting. The availability of a technique that can be used soon after injury to remove irretrievably traumatised eyes early may both reduce the risk of SO and improve cosmetic outcomes. Better training of personnel caring for military eye trauma and better education about the evidence regarding SO may help to improve outcomes. We wish to discuss our conclusions with the BOPSS membership before producing recommendations for military ophthalmologists and trauma surgeons.

Link to PDF ePoster

---

ePoster presentations - Thyroid

Abstract Number: 577

Using non-echoplanar diffusion-weighted MRI to assess treatment response in active Graves' orbitopathy: 2 case reports

Author: **Ailsa Ritchie**

poster presentation

Purpose:

To demonstrate a possible novel use of DWI MRI in monitoring treatment response in patients with active Graves' orbitopathy

Methods:

Two patients (68 and 71 years, both female) with sight threatening, active Grave's orbitopathy but low clinical activity scores underwent MRI scans before and after intravenous corticosteroid treatment. Two MRI techniques, short term inversion recovery (STIR) and non-echoplanar diffusion weighted imaging (DWI) were used. Apparent diffusion coefficient (ADC) values were calculated.

Results:

Apparent diffusion coefficient (ADC) values reduced in Patient 1 who had successful medical treatment and remained elevated in Patient 2 who had an inadequate treatment response. In these cases, MRI findings were more useful than clinical activity score alone in evaluating treatment response.

Conclusion:

Non-echoplanar diffusion weighted imaging provided a quantitative measure of treatment response by calculation of the apparent diffusion coefficient. The novel use of non-echoplanar diffusion weighted imaging for monitoring treatment response in Graves' orbitopathy is illustrated.

Link to PDF ePoster

Abstract Number: 578

Simplified Thyroid Eye Disease Grading Proforma

Author: **Allaeldin Abumattar**

poster presentation

Purpose:

Thyroid eye disease (TED) or Graves' ophthalmopathy (GO), in its severe form can be disfiguring and profoundly impairs the quality of life of affected individuals. Management to limit the visual and physical morbidity relies on thorough assessment and timely intervention. We propose a simple yet comprehensive proforma incorporating various standardised assessment tools and grading systems to assist data collection and decision-making in a busy clinical setting, with a view to integrating it into our electronic patient record system (EPR).

Methods:

Clinical parameters based on recommendations of the EUGOGO and VISA grading system as well as a stratified treatment plan were incorporated into a single-sided A4 sheet. This proforma, alongside a mini quality of life (QOL) questionnaire was piloted in the oculoplastic clinic.

Results:

We assessed 12 patients using the proforma – consultant (25%), associate specialist (33%) and trainee (42%). Data collection on parameters predictive of clinical outcome including onset of systemic and eye disease, thyroid status, subjective and objective assessment of visual function, clinical activity, ocular motility and appearance was 100%. 8% patients received treatment, 8% resulted in discharge, 8% was brought back for review in < 3 months and 58% between 3-6 months. In 25% of patients the decision was guided by responses to the QOL questionnaire.

Conclusion:

This user-friendly proforma which encompasses all the important parameters of history, clinical activity and management plan provides an effective, structured approach to data collection and decision-making for team members of various grades. When incorporated into our EPR, it has the potential of streamlining and simplifying the TED clinic experience.

Link to PDF ePoster

Abstract Number: 579

Description and evaluation of the first national 'patient and public involvement' (PPI) day for thyroid eye disease (TED)

Author: **Henry Smith**

poster presentation

Purpose:

Patients, carers and the public are central to setting the research agenda, with a key role in identifying study priorities; planning, funding, running and evaluating clinical trials; and disseminating findings. Not only does this ensure appropriate patient-focused outcomes, but the National Institute for Health Research (NIHR) has made this a prerequisite for funding. One method of encouraging engagement with research is through PPI events

Methods:

The Moorfields NIHR Biomedical Research Centre, in partnership with TED charities, arranged a PPI day for TED. The event included: didactic lectures; pre- and post-event questionnaires; an exhibition with stalls, posters and an interactive 'voting wall' to determine research priorities; focus group sessions to evaluate how patients would like trials conducted; and one-to-one interviews to explore individual patient experiences

Results:

100 people attended the event, and 70 completed questionnaires (35 patients, 9 supporters, 4 exhibitors, 15 healthcare professionals, and 7 'others'). When asked whether the day had provided what they wanted, 48/52 (92%) said 'yes', 3/52 (6%) said 'no'. Overall 18/52 (34%) rated it 'excellent', 28/52 (54%) 'very good', and 6/52 (12%) 'good'. 36 patients registered to participate in further research, and identified; finding the cause for TED, improving psychological support, and achieving a better cosmetic outcome, as key research priorities. A poor understanding of TED amongst medical professionals was a common complaint

Conclusion:

The event received very positive feedback, and achieved its key objective of encouraging patient engagement with researchers in identifying priorities and improving trial design

Link to PDF ePoster

Abstract Number: 580

Graves' Orbitopathy in HIV Positive Patients on Highly Active Antiretroviral Therapy: Clinical Challenges and Management Pearls

Author: **Matthew Edmunds**

poster presentation

Purpose:

Graves' disease (GD) as an immune reconstitution syndrome during highly active antiretroviral therapy (HAART) for human immunodeficiency virus (HIV) is well described. However, clinical challenges associated with HIV in the context of Graves' Orbitopathy (GO) are not as well characterised. Our aim was to: 1) determine the prevalence of HIV-GO co-pathology in our unit;
2) describe GO presentation and course in the context of HIV; 3) evaluate management difficulties and how these may be overcome.

Methods:

Cross-sectional study of patients with thyroid dysfunction and HIV infection at University Hospital Birmingham (2003 – 2014). Retrospective case note review to identify GO with particular reference to HAART regimen, CD4 count, HIV viral load and GO activity and severity.

Results:

Of 4202 patients with thyroid dysfunction and 1186 patients with HIV only 11 were identified with both GD and HIV. Of these only 3 had GO (27%). Each were female Afro-Caribbean patients in their fourth decade, initially presenting with absent CD4 cells and high HIV viral loads (>200,000 copies/ml). Each went on to develop autoimmune thyrotoxicosis >3 years after commencing HAART. Each had normal CD4 count and undetectable viral load at time of GD diagnosis. In each case GD and GO onset were simultaneous and GO was active, severe and required orbital decompression surgery.

Conclusion:

GO in the context of HIV is uncommon. In the few cases identified GO manifestations were clinically significant. Many challenges exist including safe immunosuppression and anticipating HAART drug interactions. To better understand GO in HIV, and counsel these patients most effectively, multi-centre surveillance is required.

Link to PDF ePoster

Abstract Number: 581

The Role of Azathioprine in the Management of Thyroid Associated Ophthalmopathy (TAO)

Author: **Aruna Dharmasena**

poster presentation

Purpose:

To report the outcomes of immunosupression with Azathioprine in the management of Thyroid Associated Orbitopathy (TAO).

Methods:

Ten TAO patients who responded poorly to first line treatment options were included in this study. All patients were given a course of Azathioprine and the response to treatment was carefully recorded by pre and post treatment clinical activity score (CAS) along with any adverse effects.

Results:

The mean age at the commencement of azathioprine treatment was 55 ± 11years. All subjects were females. The mean CAS score improved from 4 to 0 over a mean duration of 12 months. The majority of this cohort of patients tolerated Azathioprine very well, although one patient complained of ataxia, two patients had nausea and gastro-intestinal side effects attributable to Azathioprine. One patient who developed pancreatitis while on AZA had her medication stopped 6 weeks after commencement of the treatment.

Conclusion:

Azathioprine can be considered as an effective adjunct to conventional treatment options in patients with severe TAO refractory to these conventional treatment modalities. Patient selection is crucial for the treatment success.

Link to PDF ePoster

Abstract Number: 585

Autologous tissue for correction of complex thyroid upper lid malposition

Author: **Marta Perez-Lopez**

poster presentation

Purpose:

to describe the use of both periosteal rotational flap and temporalis fascia graft in the management of complex thyroid-related upper lid surgery. The use of temporalis fascia in this contect has not previously been reported in the literature.

Methods:

A 34 year-old woman diagnosed of moderate-to-severe inactive thyroid eye disease underwent bilateral orbital decompression followed by bilateral upper lid lengthening (Mullerectomy plus levator recession). The patient

underwent several prior operations to both raise and lengthen the upper lids bilaterally, but the results were not symmetrical. For the redo left upper lid retraction a periosteal rotational flap was used to correct disinsertion of the lateral horn of levator palpebrae in combination with further levator muscle recession. Correction of the recurrent right ptosis requiered a temporalis fascia interposition graft to reattach the fibrosed retracted levator muscle to the tarsus.

Results:

A good eyelid contour and symmetry was achieved using two types of autologous tissue to correct complex upper lid malposition in the context of thyroid eye disease as demonstrated by pre and post operative facial photography. No complications occurred and no recurrence was found after 8 months follow up.

Conclusion:

Both autologous periosteal and temporalis fascia can be used successfully to augment upper lid surgery in challenging cases of recurrent thyroid –related lid malposition.

Link to PDF ePoster

---

ePoster presentations - Paeds

Abstract Number: 586

Congenital cystic eye with optic nerve

Author: **Anjana Haridas**

poster presentation

Purpose:

Congenital cystic eye (CCE) is a rare condition caused by failure of invagination of the optic vesicle resulting in a persistent cyst replacing the eye. An associated optic nerve attached to the cyst is a rarely reported phenomenon that has been sparsely described histologically, with no immunohistochemistry reported previously. The authors present a case of CCE with optic nerve tissue inserting into the cyst and present the histological and immunohistochemical findings.

Methods:

Interventional, clinico-pathological case report and literature review.

Results:

Congenital right anophthalmos with cyst (congenital cystic eye) was diagnosed in a 3 day-old female patient based on clinical and radiological findings. Following a period of observation and periodic assessment, surgery was performed to remove the intact cyst, and replace orbital volume with a bioceramic implant. Histological analysis confirmed the diagnosis. The optic nerve inserting into the capsule of the cyst was distorted and appeared atrophic. A normal optic nerve head was not present. Immunohistochemistry of the optic nerve showed a positive reaction with GFAP (glial fibrillary acidic protein); a reduced layer of meningeal tissue was also demonstrated adjacent to the optic nerve using EMA (epithelial membrane antigen). In previous cases of CCE reporting an optic stalk or rudimentary optic nerve, 11 were associated with optic nerve tissue and only 4 described optic nerve histology, with no immunohistochemical detail.

Conclusion:

In conclusion the authors present the histopathology and immunohistochemistry of a CCE with an optic nerve attached. Immunohistochemical studies in future reports of this condition would enhance our understanding of

early optic nerve development and its arrest.

Link to PDF ePoster