BOPSS 2019, Nottingham
Wednesday 19th - Friday 21st June 2019

Venue: Conference Centre, Nottingham Trent University

June 19th – Update Day
June 19th eve – Welcome Reception
June 20th & 21st – Scientific Meeting
June 20th eve – Gala Dinner

Each abstract that is an ePoster has a link to the ePoster to view online, or you can view all ePosters here (link to website)

Internal links in this doc

Oral presentations on Thursday
Oral presentations on Friday
ePoster presentations

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Eyelid skin trichilemmoma and underlying malignancy: Is an aggressive treatment necessary?

Author: Christine Anggun Putri (rapid fire presentation)

Purpose:
Trichilemmoma is a benign tumor derived from the outer root sheath of hair follicles. Trichilemmoma can be associated with basal cell carcinoma (BCC), either as a collision lesion or from malignant transformation. This study evaluates malignancy associated with eyelid trichilemmoma & principles of treatment.

Methods:
Retrospective study involving biopsy-proven eyelid skin trichilemmoma cases over 15 years encountered at Sheffield Teaching Hospitals NHS Foundation Trust. Presenting features, differential diagnosis, type and number of operations required, and histopathological features were analysed.

Results:
We identified 36 cases with an average age of 66 years. The majority of patients presented with either enlarging (44%) or persistent (31%) lumps. The clinical differential diagnoses were mainly BCC (44%), squamous cell carcinoma (SCC) (3%) & papilloma (36%). 3/36 patients (8%) had trichilemmoma with associated BCC. Of the 19/36 cases (53%) of trichilemmomas without BCC with equivocal surgical margins, 7/36 patients (19%) opted for further excision while 12/36 patients (33%) opted for observation & were discharged. One patient re-presented 2 years later with invasive BCC.

Conclusion:
Trichilemmoma can mimic malignant skin conditions, therefore a biopsy or excision should be performed. Patients should be informed that a small proportion of incompletely excised trichilemmomas may conceal underlying malignancy. Therefore, further surgery to achieve clear surgical margins should be offered. Patients who opt for observation must be advised to report any recurrence of lumps or skin changes at the site of previous lesion.

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Three year disease-free outcome in all non-melanomoutous skin cancers excised with 1mm margins and same-day reconstruction in a district general hospital

Author: Jonathan Roos (rapid fire presentation)

Purpose:
The periocular area is a high-risk area for skin cancer development and deeper spread. Excision with standard Mohs techniques can lead to large surgical defects, compromise adnexal structures such as the canaliculi, as well as breach anatomical barriers to invasion such as the orbital septum. Here we describe the successful use of reduced margin excision and same-day reconstruction using frozen section analysis of all non-melanoma skin cancers in the periocular area.

Methods:
We reviewed the electronic records of all patients with non-melanoma skin cancer treated in the oculoplastic service over a 7 year-period from 2009 to 2016 to ensure full three-year follow up. Tumours were excised with a 1mm margin and sent for frozen section margin clearance with two marking sutures. Reconstruction occurred on the same day once margins were determined to be clear. To ensure good theatre utilisation other oculoplastic cases are interspersed on the list whilst histology is awaited. All samples were also subsequently processed routinely in paraffin.

Results:
162 patients had skin cancer excisions, of which 85% were basal cell carcinomas (nodular 39%, infiltrative 6), 10% squamous cell carcinomas and 5% comprised other pathologies, including benign pathology and viral papillomas. There were no recurrences after 3 years of follow-up. Cosmetic results were excellent and patients satisfaction high.

Conclusion:
Previous studies have shown long-term recurrence-free outcomes principally for patients with basal cell lesions excised with 3mm margins using en face frozen section margin clearance. This data extends these findings to all non-melanoma skin cancers and shows that smaller margins are equally safe. For the periocular area, frozen section clearance with reduced margins may offer advantages over Mohs micrographic surgery without reduced safety.

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Can upper lid everting surgery improve dry eye symptoms in patients with Meibomian gland inversion not responding to treatment?

Author: Emma Samia-Aly (rapid fire presentation)

Purpose:

A case series of patients who underwent surgical treatment for Meibomian gland inversion (posterior migration of the meibomian gland orifice, MGI) in the upper lid, secondary to cicatricial Meibomian gland disease not responding to maximal medical management.

Methods:

This was a retrospective, non-comparative, interventional case series of all patients who underwent an upper eyelid everting surgery with placement of everting sutures through a skin crease incision between July 2017 and Jan 2019. The surgical and functional outcomes are discussed including symptoms, meibomian gland position, extent of ocular surface disease and duration and type of medical treatment preceding surgery.

Results:

7 eyes of 5 patients were included in the study. All patients had been referred from cornea clinic, where various medical therapies, including lubricants, topical steroid and cyclosporin, lid hygiene, oral doxycycline, and a bandage contact lens trial, in some cases, were tried. All patients had persistent symptoms and superior ocular surface staining secondary to MGI. On average patients were treated for 7.5 months before referral, with one patient being referred 11 years after her initial consultation. Following surgery meibomian gland eversion was achieved in all eyes (100%). 85% of eyes had symptomatic improvement and 100% had improved superior ocular surface staining at follow up.

Conclusion:

A simple upper lid everting surgery can be effective in managing patients with MGI giving them symptomatic relief when all medical treatment fail. To the best of our knowledge, this is the first case series describing this simple surgical technique in the management of MGI.

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Canalicular Antibiotic Ointment Loading: Primary Management option for management of Canaliculitis

Author: Sonam Nisar (rapid fire presentation)

Purpose:
To study the outcomes of intracanalicular ointment loading as an outpatient (OP) procedure for management of primary canaliculitis.

Methods:
This is a prospective, non randomized, minimally invasive case series. Patient demographics, clinical presentations, microbiological profile and clinical outcomes were evaluated. Based on the sensitivity, suitable antibiotic ointment was taken into a 1ml syringe and loaded into the affected canaliculus through 23 gauge blunt cannula (Ciprofloxacin 0.3%, Moxifloxacin 0.5%, or Tobramycin eye ointment 0.3%).

Outcome measures: Complete resolution of canaliculitis with patency of the lacrimal passage.

Results:
A total of 24 patients were included in the study, which showed a female preponderance (62.5%, p=0.0424). Mean duration of symptoms was 13.05±14.04 months (range 0.167- 60 months. The incidence of lower canaliculus involvement (14, 58.33%, p=0.022) was significantly higher as compared to the upper (8, 33.33%).

Four patients (16.67%) showed polymicrobial growth on culture, whereas a single organism was identified in 20, 83.33% (p=0.005) cases. Staphylococcus epidermidis and actinomycyes israelii (6, 25%) were the most commonly isolated organisms followed by corynebacterium species (4, 16.67%). Mean number of intra canalicular antibiotic loading sessions required was 4.21±1.69 (range 2-8).

Mean duration of follow up was 6.13±6.12 months (range 3-24 months). Complete resolution of canaliculitis was seen in all cases (100%, p<0.0001). At the longest follow up, 21 of 24 patients (87.5% p=0.02)) had patent lacrimal system, one (4.167%) developed common canalicular block. One patient each developed a distal canalicular and a bicanalicular block respectively.Overall successful outcome was seen in 87.5% cases (p=0.0203).

Conclusion:
Canalicular ointment loading is a safe, minimally invasive procedure that can easily be done as an outpatient procedure and may obviate the need for interventions like canaliculotomy in cases of recalcitrant canaliculitis.

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Abstract Number: 105

Comparative survival of Stoploss Lester Jones Tubes (SLJT) and Lester Jones Tubes (LJT)

Author: Kailun Jiang (rapid fire presentation)

Purpose:
Extrusion is the most common cause of failure in LJT. To reduce this complication, SLJT with a distal flange-skirt have been designed. In the author’s department, SLJT are offered to patients with multiple previous LJT failures 2nd to extrusion. This study analyzed the comparative survival of these SLJTs with their previous LJTs and control patients with LJTs only.

Methods:
Retrospective review of consecutive LJT or SLJT inserted between Jan 2014-Dec 2016.

Results:
28 eyes of 23 patients had 31 SLJTs. Prior to their SLJT, they had 116 failed LJTs. 47 eyes of 36 patients had 61 LJTs only. The average age of both groups was 63 years. Complex medial canthal conditions accounted for 52% of SLJT group and 19% of LJT-only group. Compared to their previous LJTs, the SLJTs were less likely to extrude (3% SLJT vs 72% prior LJT), but were more likely to sink in (26% SLJT vs 13% prior LJT). The median survival of LJTs in those who went on to have a SLJT was 3.5 months. SLJTs were able to lengthen the median survival to 26 months in this group, which was statistically significant (P<0.0001).
While extrusion was also the most common complication in the LJT-only group, this occurred only in 20% of eyes. Tube failure from sinking in occurred in 14% of eyes. The median survival in this group was 25.5 months and was not statistically different from the SLJT group (p=0.4497).

Conclusion:
SLJTs significantly increased the median survival of conjunctivodacryorhinostomy bypass in patients prone to LJT failure. SLJTs are able to rescue this group allowing them to regain a similar survival curve to the less complicated LJT-only group. Rates of tube extrusion are significantly reduced using the SLJT, but frequency of sinking in is increased.

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Abstract Number: 106

**Methodology of functional lacrimal MRI imaging**

**Author:** Valerie Juniat *(rapid fire presentation)*

**Purpose:**

Functional epiphora is a common and poorly understood condition. Dacryocystogram and dacryscintigraphy are variably used to investigate it but have major limitations with physiological and anatomical information respectively. We describe the use of dynamic magnetic resonance dacryocystography (MRDCG) to provide functional video images of the lacrimal drainage system.

**Methods:**

15 volunteers with no lacrimal symptoms and 5 patients with unilateral epiphora were prospectively recruited and underwent dynamic MRDCG. Dotarem contrast agent (Gadoteric acid 0.5 mmol/mL) was diluted 50 folds in sterile normal saline and infused from an Alaris GH Syringe Pump machine (infusion rate of 3mls/h) through a cannula onto the patient’s eyes. The volumetric interpolated breath-hold examination (VIBE) sequence was used to visualise contrast flow through the lacrimal drainage system on a 1.5T MRI scanner.

**Results:**

Dynamic MRDCG with VIBE provides videos that reliably demonstrate contrast flow that is physiological and gives good anatomical data.

**Conclusion:**

Dynamic MRDCG provides good structural and temporal resolution of tear flow. It has the potential to be used as a routine clinical investigation of patients with epiphora that can safely and quickly provide functional and anatomical information of the tear drainage system and surrounding region. This may help understand the cause and guide the treatment of lacrimal drainage disease.

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Is it time to consider new treatments for ocular chemical burns?

Author: Romeela Rana-Rahman (rapid fire presentation)

Purpose:
To increase the awareness and debate the role of new amphoteric chelating agents as first line treatment of ocular chemical injuries.

Methods:
A literature review was performed for cases and comparative studies using Hexafluorine and Diphoterine for first line treatment of chemical injuries. Electronic database searches were performed on Ovid-Medline. Studies included were published in peer reviewed journals up to 2017. All papers included alkali burns only and documented chemical injury to the body. Those with delayed treatment (>24 hours) and acid injuries were excluded.

Results:
This review included 183 cases which described the cutaneous reaction of amphoteric solutions (AS) versus water or saline. There is a reported statistically significant difference in the normalisation of pH post AS use and degree of blisters occurring post diphoterine use versus water (p<0.001). There are only 3 cases in which corneal epithelial loss was assessed. There is evidence that there are better outcomes for faster corneal epithelialisation, which should lead to fewer complications but this has no statistical significance.

Conclusion:
There is encouraging evidence that the severity of the injury is less when AS are used as a first line agent. This may have an important role in limiting sequelae, including lid burns and stem cell loss; particularly for patients who abscond. This review highlights the need to collect more cases of AS use and the need for a more comparative controlled trial. None of the researchers were blinded in these studies. At minimum a ‘blinded’ clinician should assesses the degree of ocular injury post AS use versus conventional irrigation. This should include assessment and formal grading of the ocular surface injury and visual outcomes.

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Management of Microphthalmia with Cyst over a Twenty-Year Period

Author: Sri Gore (rapid fire presentation)

Purpose:

Our study describes the natural history and the management course of the largest case series of patients with microphthalmia associated cysts. We provide recommendations for timing and indications for surgical treatment based on our outcomes.

Methods:

Retrospective case series of patients attending the Ocularistica Italiana, Rome over a twenty-year period. Patients were identified from a clinical database. Medical records, clinical photographs and MRI scans were utilized to assess the cosmetic and anatomical outcomes of the management of microphthalmia with cyst.

Results:

68 patients (71 sockets with microphthalmia associated cysts) presented to a specialist microphthalmia-anophthalmia clinic in Rome over a 20-year period. The median age of presentation is 1 year old (range 9 days – 30 years). 50% of patients were under the age of 1 year at presentation.

The cysts were either detected clinically or were diagnosed on the baseline MRI. They were located in the inferior quadrant (49%), posteriorly (15%), and in the superior quadrant (13%). A deviated microphthalmic eye usually heralded the presence of a cyst.

55% of microphthalmic cysts were removed surgically. The principle reasons for surgical intervention were 1) prosthetic shells no longer remained centralized or stable. 2) Inability to fit a prosthetic 3) distortion of the socket, conjunctival tissues and lid. Four sockets had primary placement of a ball implant at the time of cyst excision. However all these patients required subsequent removal of the implant because of its resultant eccentric position. Five dermis fat grafts were used to replace the orbital volume as secondary procedures at least six months after cyst excision to allow the orbital tissues to settle.

The 32 cysts, which were left in situ, did not impede satisfactory prosthetic fitting and provided orbital volume. Six were seen to spontaneously resolve or contract with time leading to orbital volume loss. The mean follow up was 7.5 years (1 month – 28 years).

Conclusion:

Cysts associated with microphthalmia may present clinically or be detected on imaging but they do provide useful volume enhancement for a growing orbit. However, we do recommend removal if it impedes the cosmetic rehabilitation of the socket and periocular tissues. Around half the patients in this series required removal of cyst. We found that the secondary placement of dermis fat graft to replace orbital volume following excision of the cysts provides the best, stable reconstruction for the socket and support for the optimal cosmetic prosthesis.

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**Keratopigmentation for phthisical eyes, an alternative to ocular prosthesis: outcomes in a series of 234 eyes**

**Author:** Maria Alejandra Amesty (*rapid fire presentation*)

**Purpose:**
To report the outcomes and complications observed in a consecutive series of 234 cases treated with keratopigmentation (KTP).

**Methods:**
KTP was performed in 234 eyes of 204 patients for therapeutic and cosmetic reasons, as an alternative to ocular prosthesis/evisceration/enucleation. The cosmetic appearance was satisfactory in 95% of the cases. From them, only 29 patients suffered complications. Different KTP techniques and three generations of pigments (GP) were used. The superficial and intrastromal techniques (assisted or not with femtosecond) were performed. Light sensitivity (LS), visual field (VF) limitations and MRI alterations were considered functional complications. Organic complications were described as change in colour, colour fading and neovascularisation.

**Results:**
The percentage of complications was 12.82%. Most patients complained of postoperative LS (49%), then colour fading and change in colour (19%). Neovascularisation, VF limitations and MRI complications constituted 7%, 4% and 2%, respectively. Organic complications were observed with the previous GP but resolved with the latest third GP with CE mark certification (Conformité Européene).

**Conclusion:**
To the best of our knowledge this is the first time a study systematically approaches and reports KTP complications. KTP with third GP provides better results and fewer complications than previous ones. Therefore dermatological pigments should not be used for the eye. KTP is a modern, minimally invasive technique that helps solve several functional ocular problems and improves cosmetic appearance of the patients. This procedure could avoid more mutilating procedures such as evisceration and enucleation.

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Abstract Number: 110

**Periosteal grafts for Fornix reconstruction**

Author: *Katja Ullrich* *(rapid fire presentation)*

**Purpose:**

Fornix and socket reconstruction can be a challenge, regardless as to whether the cause is socket contraction or cicatrising disease. Options for large grafts with other than oral mucosa are limited and difficult to obtain. Periosteal flaps have been used for lid reconstruction, they conjunctivalise well and are friendly to the ocular surface. Periosteum is a readily available at any size required and its donor site is relatively painless in the postoperative period. We describe the use of periosteum as a graft for fornix reconstruction and report our results.

**Methods:**

We report a retrospective case series of three patients undergoing fornix reconstruction with use of periosteal grafts. Patients were aged 12, 42 and 77 years old, with indications of fire work injury, mucus membrane pemphigoid and chemical injury respectively. All patients had previously undergone buccal mucosa grafting unsuccessfully, and had now contra-indication for the use of our routinely preferred method of using oral mucosal grafts.

**Results:**

All patients underwent harvesting of periosteal flaps from the crown of their head or superiorly on the forehead as part of the harvest of a pericranial flap. There were no harvest site related discomfort affecting daily activities. Graft sizes of 4-5 cm were utilised, but could easily be sized up if required. All patients had deepening of their fornices, with the inferior fornix improving more than the superior fornix. Patients were comfortable post-operatively but all had significant swelling that took more than 6 weeks to resolve. The first (paediatric) patient developed an infectious keratitis, possibly related to the use of a bolster. In the remaining cases, a fornix deepening bolster was not used.

**Conclusion:**

We present our experience with periosteal grafts for posterior lamella replacement and fornix reconstruction. Periosteum can be considered as an alternative to oral mucous membrane in selected cases. Peri-operative antibiotics and possibly, corticosteroids may be of value in these cases. The risks and benefits of bolsters are debatable.

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Evisceration with intra-scleral acrylic implant and scleral autograft: a modified surgical technique

Author: Paul Rainsbury (rapid fire presentation)

Purpose:
To describe a modified evisceration technique using a scleral autograft harvested from the posterior sclera with an 8mm dermatological skin punch. Once the acrylic ball has been inserted into the natural scleral pocket the autograft is used to cover the anterior defect in the sclera in lieu of the removed corneal button. The acrylic ball therefore sits in a more physiological position with minimal manipulation of the sclera and attached muscles compared with standard techniques.

Methods:
A retrospective case series identified three patients who underwent this procedure over a 12 month period.

Results:
There were no intraoperative or early complications in these three patients, and good postoperative results were achieved. Although difficult to quantify objectively, it was obvious clinically that there was less inflammation and a quicker recovery time compared with standard evisceration techniques involving scleral separation into flaps, optic nerve disinsertion and deep retroscleral orbital implant placement. The three patients were all followed up for > 6 months (mean 18 Months). There were no cases of implant exposure.

Conclusion:
Scleral autograft appears to be a safe and effective technique in this small sample of patients allowing faster rehabilitation and better physiological positioning.

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Retro-caruncular Medical Canthal Tendon Plication and Lower Lid Suture Sling with Retractor recession – A narrated surgical video

Author: Katja Ullrich (rapid fire presentation)

Purpose:

Stabilisation and elevation of the medial lower eyelid in facial nerve palsy (FNP) remains a challenge. Contributing factors include descent of the midface, loss of superficial preseptal and pretarsal heads of the orbicularis muscles, and the deep heads of the preseptal and pretarsal orbicularis muscles that attach to the lacrimal sac fascia and medial orbital wall. Skin contraction may also develop.

We have previously published a technique that plicates the medial canthal tendon (MCT) to the medial orbital wall and then suspends the lower lid with a “hammock” type suture sling to the lateral orbital wall. This is combined with a recession of the lower lid retractors and release of medial and lateral horns to reduce the downward pull and elevate the lower eyelid.

Methods:

We show a surgical narrated video (6 min) of the above technique.

Results:

MCT plication with suture sling and retractor recession elevates and stabilises the lower eyelid with a posterior and superior vector fixation of medial canthus in patients with FNP.

Conclusion:

This technique is our procedure of choice for lower eyelid ectropion and retraction in FNP and is useful for oculoplastic surgeon’s repertoire.

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Conjunctival Sparing Ptosis Correction by white-line advancement technique

Author: Fatima Habroosh *(rapid fire presentation)*

**Purpose:**

“White line” advancement technique is a procedure that spares the conjunctiva, muller muscle and tarsal plate. We hereby describe our technique of white line advancement posterior ptosis surgery and assess the efficacy and success rate of posterior approach white line advancement.

**Methods:**

Retrospective study, chart review of 48 patients from January 2014 to January 2019 who presented with ptosis and underwent surgical correction with white line advancement technique under local or general anaesthesia. All types of ptosis that were included had good levator function (>14mm). Success rate was defined as maintaining good, symmetrical eyelid position with inter-eyelid height asymmetry of ≤1 mm, and satisfactory eyelid contour 3 months postoperatively. The analysis was based on number of patients not eyelid.

The procedure is usually performed under local anaesthesia, but as the patient’s cooperation is not needed a general anaesthesia/ deep sedation can be an alternative option for paediatric age groups or if the patient is anxious.

Prior to infiltration of the anaesthesia the intended skin crease is marked centrally by 2-3 mm in length just above the pupil. Additionally, the upper lid margin is marked at the level of the pupil as a guide for the placement of the suture onto the anterior surface of the tarsal plate for levator advancement.

Approximately a total of less than 2 ml of 2% lignocaine with 1:200000 adrenaline is infiltrated along the marked skin areas, skin close to the marked lid margin and subconjunctivally with the lid everted. Following induction of local anaesthesia, a 4/0 silk suture is passed through the grey line of the upper lid. A 2-3 mm skin incision – at the level of intended skin crease – is performed just above the pupillary level extending laterally. The lid is everted and a desmarres retractor is used to keep the lid in position. The superior border of the upper tarsal plate is identified and with the use monopolar cautery the conjunctiva is cut 1 mm away from the upper border of tarsal plate. As the upper lid is under traction the conjunctiva retracts back by another 0.5-1.0 mm. This provides a good space for further dissection of the conjunctiva off the muller muscle with monopolar cautery. The dissection of the conjunctiva off the muller is then continued with blunt dissection by cotton bud. Next the muller muscle is cut along the same line with monopolar cautery and separated from the underlying conjunctiva. The muller muscle is easily identified by vertically running tortuous vessels along its length. Prior infiltration of local anaesthesia and the use of monopolar cautery minimizes bleeding from the muller muscle. As the dissection of the muller muscle is continued the “white line” becomes visible in full length. The white line is grasped with 0.3 mm tipped forceps and minimally dissected off the surrounding tissue for the placement of the sutures. The anterior surface of the tarsal plate is then cleared of the orbicularis muscle by 3 mm from the lid upper border of the tarsal plate, To reattach the levator to the tarsal plate both ends of one double armed 5/0 vicryl long suture is initially passed through the anterior surface of the tarsal plate approximately 2 mm posterior the tarsal margin. This suture is placed half thickness through the tarsal plate. We prefer a vertical placement to the tarsal edge. However, we have experienced that a horizontal placement would be equally effective in achieving similar outcome. After checking that the suture is half thickness through the tarsal plate by direct visualization, the needle is passed through the white line- incorporating no more than one mm of its thickness. The muller muscle is also incorporated. At this stage a knot is tied onto the anterior surface of the tarsal plate. This will position the levator onto the anterior surface of the tarsal plate. We routinely use 2 and then one throws before tying the knot. Next both ends of the suture is passed back just under upper part of the tarsal plate (but not incorporating the tarsal plate) and exteriorized through the initial skin incision. The suture is tightened over the orbicularis oculi muscle. The height and the lid contour is checked. Rarely a second suture is needed lateral to the first suture. However, in majority of cases
placement of one suture suffices to achieve excellent lid contour and height. The skin is then closed with one or two 7/0 or the 5/0 vicryl. If excision of excess lid skin is needed (blepharoplasty), this is performed prior to the steps mentioned above. The eye is padded for 24 hours and the patient is seen in 1-2 weeks for suture removal.

Results:

Total number of patient was 48, with 71 eyelids (23 bilateral). Female were more than males, 27 and 21 respectively. Average age was 47-year-old with range of 19 to 81. Eighty five percent of patients were having acquired aponeurotic blepharoptosis. Also, other types were included: acquired mechanical, anophthalmic socket, congenital ptosis. Congenital ptosis was defined based on patient history and all of them had good levator function (>12mm). The percentage of patient who had previous eyelid surgery was 14.5%, majority of whom ( 71% ) has previous blepharoptosis correction procedure. Concomitant other procedures included: blepharoplasty, brow ptosis repair, entropion repair and mass excision in 29.16% cases. Mild post-operative complications occurred in 14 patients, which are wound infection (1) suture granuloma (1), over correction (2), lagophthalmos (1), peaking (1) and hematoma (3). All resolved without the need for further surgical intervention. Seven patients had early recurrence and 3 has late recurrence of ptosis. The success rate was 80% with average follow up period 37.7 weeks (approximately 9 months) and range from 12 – 144 weeks. Further analysis for failure cases was done: one of the patient was having mechanical ptosis due to neurofibromatosis type1 and has recurrence because of eyelid plexiform neurofibroma, two of the patients were having congenital ptosis with good levator function. Average of recurrence time 19.3 weeks post-operative. Four patient had revision blepharoptosis correction with white line advancement technique and one has external approach levator resection technique. All of the five patients has good results.

Conclusion:

The surgical method of white line advancement technique was described in details. The success rate of the procedure was approximately 80% in our data. This procedure is a promising technique in cosmetic and functional blepharoptosis correction. The post-operative complications were mild and manageable. The advantage of this procedure is to preserve the anatomy of the conjunctiva which has potential benefit in maintaining healthy ocular surface. Compared to the external approach ptosis surgery, the postoperative eyelid oedema and haematoma is minimal and the patient can resume work 2-3 days after the surgery compared to the external approach. In our hands the operating time is less than other types of ptosis surgeries. This technique can easily be used in patients who require deep sedation or general anaesthesia. Furthermore, only one suture is needed to close the skin wound. We find the skin crease incision is an excellent modification of the technique to reduce rate of postoperative infection and granuloma formation that we experienced in all of our first three cases. With good levator function of 12mm and better, a positive phenylephrine test is not needed to decide about the type of the surgery preoperatively. Further comparison study between different approaches is needed to prove the superiority of this procedure.

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Naturally Looking Dynamic Skin Crease in Incisional Asian Blepharoplasty

Author: CHUNG NEN CHUA (rapid fire presentation)

Purpose:
Asian blepharoplasty is the most commonly performed eyelid surgery in the Far East. However, in order to have a naturally appearing skin crease, the skin crease should have minimal scarring or depression.

Methods:
We describe a method of incisional Asian blepharoplasty in which the levator aponeurosis is attached only to the orbicularis instead of the overlying skin. The wound is then closed by suturing the cut edges of the skin.

Results:
20 patients undergoing Asian blepharoplasty were enrolled for the techniques. The results showed naturally looking dynamic skin crease without depression or scarring.

Conclusion:
Aesthetically pleasant dynamic skin creases can be created by apposing the cut edges of the eyelid skin after suturing the levator only to the orbicularis instead of the skin.

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Abstract Number: 115

Transcanthal lateral canthopexy for correction of lower lid ectropion and entropion

Author: Sohraab Yadav (rapid fire presentation)

Purpose:

Lateral tarsal strip alongside adjunctive procedures remains a common method for correction of ectropion and entropion due to excessive lid laxity. However, this procedure leaves external scarring and other poor cosmetic features such as rounding of the lateral canthus post-operatively. Here we describe long-term outcomes of a simple transcanthal lateral canthopexy procedure for the correction of ectropion and entropion.

Methods:

All patients undergoing transcanthal lateral canthopexy for the correction of ectropion and entropion were identified over a 4-year period. Surgery was carried out using a polypropylene suture to tighten and secure the lateral canthal tendon to the superolateral orbital rim. Inferior retractor repair was carried out when indicated. Patients were excluded if there was less than 6 months of follow-up. Improvements in lid position and laxity (objective) and symptoms (subjective) were recorded.

Results:

A total of 67 patients underwent transcanthal lateral canthopexy and met the inclusion criteria. Of these, 49 cases underwent ectropion correction. Objective lid position improvement occurred in all cases at final follow-up. Symptomatic improvement occurred in 85.6% and 80.0% were symptom free. Of the 18 entropion cases, lid malposition was corrected in all patients at final follow-up. Symptomatic improvement occurred in 100% of cases with complete resolution of symptoms in 88.9%. There were no intra-operative or post-operative complications.

Conclusion:

Transcanthal lateral canthopexy is a reliable technique for the management of lid laxity and achieves superior cosmesis to traditional approaches.

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Redesigning Rundle’s curve for Thyroid Eye Disease?

Author: Ahmed ALNAHRAWY (rapid fire presentation)

Purpose:
Since 1945 Rundle’s curve is use to describe the temporal activity and severity of thyroid eye disease (TED). However many patients’ disease do not follow this standard. Also Rundle did not incorporate the course of the endocrine disease. The study aims to explore the temporal relation of Dysthroid optic neuropathy (DON) and subsequent ocular treatment outcomes relative to the course of the endocrine disease to create a multidisciplinary perspective to improve predictive and diagnostic criteria for this syndrome.

Methods:
A retrospective case note review of DON patients seen at three linked Thyroid MDT clinics. Parameters included patient demographics, clinical and radiological features, timeline and thyroid status and eye disease severity/activity, management and outcome.

Results:
There were 17 DON patients (Male 4, Female 13), median age 44yrs(IQR 33-54). Radio-iodine/Thyroidectomy 59%(10) before DON. 82%(14) were euthyroid at DON diagnosis. Median time to DON diagnosis was 7 months (IQR1-38 months).76% of patients euthyroid patients at DON diagnosis 29% were smokers. 59% had thyroid family history, 23.5% had diabetes. Presenting VA >6/12 in 47%, Final VA>6/12 in 84%. All had EUGOGO DON intravenous steroid treatment. 41% underwent urgent orbital decompression. All required second line treatment. 41% had radiotherapy and 77% had second line immunosuppression.

Conclusion:
Presentation of DON can be insidious in euthyroid patients many years after onset of thyroid disease. Orbital decompression is not curative but useful as adjunctive treatment in an emergency setting. Most patients require long term second line immunosuppression and/or radiotherapy to prevent relapse. Vigilance is always essential to prevent visual loss.

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Visual survival after open globe injury: a comparison of two prognostic models for visual outcome in a tertiary ophthalmic centre

Author: Ahmed Aziz (rapid fire presentation)

Purpose:
The Western Eye Hospital (WEH) is one of the busiest eye trauma centres in the UK. However, the majority of patients presenting with open globe injuries do not receive an indication of visual prognosis at initial assessment. We evaluated the use of the Ocular Trauma Score (OTS) and Classification and regression tree (CART) analysis as prognostic models of visual outcome.

Methods:
Retrospective review of 36 consecutive open globe injuries at the WEH from April 2016 to March 2018. OTS and CART predictive models were compared against actual visual outcomes. Classification of open globe injury, average time taken from assessment to primary repair and level of surgeon were collated.

Results:
Mean age was 38 (15-86 years), 81% male and 89% of injuries were due to accidents. The majority of injuries were lacerations (53%) with globe rupture in a third of cases. 49% of primary repairs were carried out by non-consultant grades with 74% within 24 hours of the patient’s initial assessment.

When predicting visual survival (LP or better) the OTS had a sensitivity of 93.5%, specificity 100% whilst the CART yielded a sensitivity of 100% and specificity of 75%. When predicting minimal-to-severe visual loss (3/60 or better) OTS had a sensitivity of 90.5%, specificity 78.6% whilst the CART yielded a sensitivity of 100% and specificity of 64.3%.

Conclusion:
No difference in visual outcome and scoring sensitivity was found between consultant and non-consultant grades. Both the OTS and CART were shown to have high predictive accuracy. These scoring systems should be incorporated routinely in the initial assessment of open globe injuries to aid counselling of patients.

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Abstract Number: 118

Orbital Trauma in a Regional Orbito-facial Trauma Centre

Author: Ahmed ALNAHRAWY *(rapid fire presentation)*

**Purpose:**

Complex orbital fractures require multi-specialty input. There are no nationally agreed best practice guidelines (BAOMS Trauma Specialist Group Lead). A recent meta analysis established that patients fractures operated on more than 14 days post injury had a significantly increased risk of persistent diplopia.

**Methods:**

We collected data on all patients presenting to a regional orbito facial trauma centre over a 3.5 year period referred for orbital and ophthalmic assessment between December 2014 to June 2018 including demographics, eye and orbital injuries, management and outcomes.

**Results:**

324 patients, Age range 15-89, 282 patients (87%) below 60 yrs of age, 42 patients (13%) above 60. Assault in 219 patients (67%) was the most common mechanism of injury in the under 60s and falls 16 patients (73%) for above 60s age group
Isolated fractures in 221 patients (65.5%) while complex fractures 32 (9%)
92% of patients presented with ocular motility problems that improved after surgery.

42 cases residual ocular motility needing referral to strabismus clinic. Strabismus surgery was needed for 14 patients (4%)
14% were left with residual diplopia
7 (2%) patients with Traumatic Optic Neuropathy

The timing of injury to eye assessment was within first week for 42 patients (13%), second week 229 patients (70%) and 53 (16%) patients were seen after 2 weeks. 195 patients (60%) went for Orbital Fracture Repair.

**Conclusion:**

A clear referral pathway from trauma to OMFS via ophthalmology is essential to ensure patients are treated in a timely fashion as this would reduce need for reoperationa and maximise final outcome

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Real-world use of non-echoplanar diffusion-weighted magnetic resonance imaging for detection, disease monitoring and clinical decision-making in Graves’ Orbitopathy

Author: Claire Feeney (rapid fire presentation)

Purpose:

The Clinical Activity Score (CAS) is widely used to grade activity of Graves’ Orbitopathy (GO) and guide treatment decisions but has a number of limitations. Non-echoplanar diffusion-weighted magnetic resonance imaging (non-EPI-DWI) of the extra-ocular muscles (EOMs) may be able to address some of the limitations posed by CAS and other imaging techniques but the correlation with CAS is unknown.

Methods:

A retrospective study of 31/88 patients seen in a multidisciplinary GO clinic over a 5 year period who had at least one ophthalmic and endocrine assessment including CAS score and non-EPI-DWI Apparent Diffusion Coefficient (ADC) calculation. Spearman’s rank correlation coefficient was used to determine the relationship between CAS and non-EPI-DWI. A Decision Tree was constructed to evaluate clinical decision-making and Receiver-Operator Curves (ROC) were generated for mild GO and dysthyroid optic neuropathy (DON).

Results:

In total, 60 non-EPI-DWI scans (368 EOMs) were evaluated. There was a significant positive correlation between CAS and ADC (rs=0.403 CI 0.312-0.489, P<0.0001). ADC values were significantly higher in the CAS ≥3 group compared to the CAS <3 group, P<0.0001. Our Decision Tree identified a third ‘intermediate’ severity cohort where non-EPI-DWI was particularly useful in guiding clinical decisions. ADC performed well as a diagnostic test in predicting DON (AUC 0.974 95% CI 0.93-1.0).

Conclusion:

Non-EPI-DWI correlates well with CAS in our patients and was a useful adjunct to CAS in making clinical decisions especially in patients with ‘intermediate’ severity GO and may also be useful in identifying patients at risk of DON.

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Abstract Number:120

A Survey of Current Practices by the British Oculoplastic Surgical Society and Recommendations for delivering a sustainable multidisciplinary approach to Thyroid Eye Disease (TED) in the United Kingdom

Author: Vickie Lee (rapid fire presentation)

Purpose:

The Amsterdam Declaration (2009), the Royal College of Physicians (RCP, 2015) guidance and Thyroid Eye Disease Amsterdam Declaration Implementation Group (TEAMeD-5, 2017) recommendations have the common goal of improving access to high quality care for thyroid eye disease (TED). The TEAMeD-5 recommends that all patients with moderate to severe TED should have access to a multidisciplinary clinic with co-location of Ophthalmology and Endocrinology expertise.

Methods:

A 2-stage survey of the full BOPSS membership was conducted to ascertain current practice of existing resources to meet this recommendation between December 2016 to August 2017.

Results:

Forty one percent (65/158) responded to Survey 1, and 28 (18%) respondents to Survey 2. 36/55 (55%) of the respondents rated their relationship with their endocrinology colleagues as good. Only 6/28 (21%) of respondents use QOL in current practice. Approximately 60% (39/65) of respondents have an existing multidisciplinary clinic with an endocrinologist. Up to 50% of centres have Joint endocrinology-ophthalmology clinics. Second line immunosuppression provision is patchy. Access to orbital decompression surgery appeared available in most parts of the country.

Conclusion:

This survey is a ‘snapshot’ of some aspects of current TED management in the UK and the findings suggest that there is scope for improvement. Based on the above we recommend a framework to enhance more robust collaboration across specialties treating TED. We propose standards endorsed by multi-disciplinary stakeholder societies for early diagnosis, assessment and treatment.

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**Abstract Number:** 121

**Does Redo Optic nerve sheath fenestration have a role in preventing optic nerve function deterioration**

**Author:** Reena Kumari *(rapid fire presentation)*

**Purpose:**

Optic nerve sheath fenestration is one of the surgical options in treating patient with sight threatening papilledema secondary to raised intracranial pressure. But what is its role in patients with refractile papilledema. We intend to look into the surgical success of this procedure in redo patients.

**Methods:**

Patient were identified by the coding system in the hospital database. Retrospective case notes review and data analysis of patients undergoing redo optic nerve sheath fenestration in refractile papilledema was done.

**Results:**

- 3 patients identified by the database were excluded due to lack of enough follow up data due to a combination of factors.
- 9 eyes of 5 patients were included for the purpose of this study. 8 of these patients had idiopathic intracranial hypertension. 1 patient had sinus venous thrombosis.
- Indication for redo surgery was worsening of visual fields in 5 eyes, worsening of vision in 2 eyes and persistent disc oedema in 2 eyes. 1 patient had 3 ONSF as the shunt had to be removed due to complications.
- 3 patients had a shunt inserted for uncontrolled raise of ICP. 5 patients were on medical treatment with furosemide. 2 on acetazolamide and 1 on warfarin.
- In 6 eyes mitomycin was used at optic nerve sheath fenestration
- Vision improvement was noted in 1 eye. 4 patients had slight worsening in visual acuity
- Visual field improvement was noted in 5 eyes while there was a slight visual field worsening in 4 eye
- Colour vision improvement was noted in 1 eye only

**Conclusion:**

Refractile papillaedema is difficult to treat. Doing a redo ONSF does not change the Visual acuity and the visual field in these patient. In these cases we need to look at other modalities of treatment.

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What happens to the contralateral eye in optic nerve sheath fenestration (ONSF)?

Author: Reena Kumari (rapid fire presentation)

Purpose:

The circulation of CSF between the brain and the optic nerve is considered to be a 3-compartment system. ONSF is considered to work by decompression of the subarachnoid space leading to the filtration of the CSF around the optic nerve. It is also considered to cause scarring in the peri optic nerve sheath preventing consequent CSF accumulation and further risk of visual loss.

As the flow of CSF is considered to be a continuous 3-compartment system the purpose of this study is to look into the consequence of optic nerve sheath fenestration in the contralateral eye.

Methods:

Patient were identified from the hospital database using the coding system for ONSF. Retrospective case notes review and data analysis were done for these patients. Redo ONSF and patients with bilateral ONSF were excluded from this study.

Results:

- Total 38 patients were identified. 5 patients were excluded due to enough follow up data due to a combination of factors.
- Patients were reviewed and the contralateral pre and post visual acuity and pre and post visual field were compared.
- Patients who had poor presenting contralateral visual acuity and visual field showed improvement in the post ONSF visual acuity and visual field.

Conclusion:

From our case review we can say that there can be improvement in the visual acuity and visual field in our group of patients. In view of this result we should wait to see for a at least a short time until the vision and visual fields can be reliably assessed for worsening/progression or improvement before embarking on contralateral side surgery.

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Rhino-orbital Mucormycosis: A Clinical Spectrum and Decision Making for Orbital Exenteration

Author: Dr. Anurag Mittal (rapid fire presentation)

Purpose:
To present the spectrum of clinical presentation in forty cases of rhino-orbital mucormycosis along with the epidemiological, radiological and microbiological data and to highlight the factors in decision making for orbital exenteration.

Methods:
A retrospective analysis of 40 patients of proven rhino-orbital mucormycosis managed at a tertiary hospital in New Delhi, India, between 2009 to 2019, was carried out. The study analysed epidemiological, laboratory and radiological data with management outcomes. Seven of the forty cases received liposomal amphotericin B (L AmB) mono-therapy while 33/40 received a combination therapy of L AmB and Posaconazole. All patients underwent Functional Endoscopic Sinus Surgery (FESS). Orbital exenteration was carried out in patients presenting with no perception of light and Central Retinal Arterial Occlusion, complete ophthalmoplegia along with radiological features suggesting either risk of or presence of intracranial extension. Bilateral disease and patients with extensive intracranial spread with little chance of survival were relative contraindications.

Results:
The average age at presentation was 51 years. The most common predisposing factor was Diabetes Mellitus (36/40 cases). Cerebral involvement was seen in 18/40. FESS with orbital Exenteration was carried out in 25/40 cases while 15/40 underwent FESS alone. The minimum follow up period was 3 months unless the patient died earlier. Overall death rate was 30%, with 12% mortality in orbital exenteration with FESS and 60% in FESS alone.

Conclusion:
Diabetes Mellitus was the most common predisposing factor. Early diagnosis of mucormycosis and Timely exenteration in the appropriate cases may help improve survival rates.

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Clinical, radiological and histopathological diagnosis correlation in orbital biopsies: 10-year retrospective study in Bristol Eye Hospital

Author: Ioana Pereni (rapid fire presentation)

Purpose:

to investigate the accuracy of suspected clinical and radiologic diagnosis in patients undergoing orbital biopsy procedures.

Methods:

Data from orbital biopsy patients with available imaging and tissue diagnosis (143 patients) was collected between June 2008 and May 2017 (10 years). The preoperative imaging (CT, MRI) and histopathology reports were compared to clinical diagnosis.

Results:

143 patients /149 biopsies were included in the study. The median age was 61 years (0-91). Imaging showed most of orbital masses located extraconal (74.4%). The clinical diagnosis matched the tissue diagnosis in 55% of biopsies and the imaging diagnosis was correct in 64.4% of cases. The most common tissue diagnosis was non-specific inflammation (30%), followed by lymphomas (23.4%), benign tumours (11.4%) and metastases (10%). A high rate of correct clinical diagnosis was found in lymphomas (85.7%) and metastases (86.6%). They also had the top rate of correct imaging diagnosis (lymphomas 88.5%, metastases 93.3%). Non-specific orbital inflammation was least correctly suspected clinically (31%) and benign tumours radiologically (47%). Histopathology was nondiagnostic in 12 patients (8.4%). A second biopsy was needed in 6 patients (4.2%), of which 2 were then diagnosed with GPA and 2 with high grade T or B cell lymphoma.

Conclusion:

Modern imaging methods (MRI, CT) and use of contrast are effective in locating orbital pathology and aid targeted biopsies, however tissue diagnosis remains the gold standard in orbital lesions. It is reassuring to see that more sinister pathology is better suspected clinically and radiologically, allowing appropriate prioritisation of timing of biopsy.

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Abstract Number: 203

**Orbital lymphoma: a 13-year review at a national ocular oncology centre**

**Author:** Jessica Boston (*rapid fire presentation*)

**Purpose:**

To review the clinical features, management and outcome of orbital lymphoma patients referred to the Scottish Ocular Oncology Service.

**Methods:**

Patients with orbital lymphoma were identified by the clinical coding team and their notes were reviewed retrospectively. Data was collected on clinical features, investigations, treatment and outcome.

**Results:**

Seventy-eight patients were identified of which 55% were men. The average age at diagnosis was 64 years. The right orbit was involved in 49%, the left in 41% and 10% cases were bilateral. The average follow up time was 36 months. A periorbital mass was the most common presenting feature (34%) followed by eyelid swelling, diplopia and proptosis. Orbital CT was done in 76% of patients and orbital MRI in 49%. The most common location was extraconal (50%) followed by extraocular muscle (25%) and lacrimal gland (17%). An orbital biopsy was carried out in 88% of patients. MALT lymphoma was the most common subtype (31%) followed by follicular lymphoma (25%). Orbital radiotherapy was first-line treatment in 60% of the patients, chemotherapy in 32% and observation in 8%. Orbital lymphoma was the first presentation of systemic lymphoma in 36% of the patients reviewed.

**Conclusion:**

Orbital lymphoma can present with non-specific symptoms and may occur bilaterally. Appropriate imaging and biopsy is essential for diagnosis. MALT lymphoma was the most common in our cohort. Relapse is common and can be late, so prolonged monitoring is advised.

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Computed Tomography (CT)-guided Core Needle Biopsy of Orbital Lesions

Author: Bashar Bata (rapid fire presentation)

Purpose:

To evaluate the usefulness of core needle biopsy of orbital masses under computed tomography (CT) guidance.

Methods:

We retrospectively reviewed the medical records of patients who received this procedure. The procedure was performed under local anaesthesia on a day case basis. A peribulbar block was administered 15 minutes prior to the procedure. An initial non-contrast CT was performed through the orbits to allow localisation of the mass. A reference light was used to illuminate the plane of the optimal slice. A 6 cm 18G Temno Evolution semi-automated biopsy needle held by a pair of long locking Rampley sponge forceps was inserted through the skin into the orbit. Prior to further advancement of the needle a low-dose CT limited to the previously determined plane was performed to confirm its position. The needle was then advanced, and the cutting needle was deployed to obtain the biopsy.

Results:

Five patients were identified. They all had several comorbidities that rendered orbitotomy and general anesthesia risky. The core needle biopsy was successful in 4 patients in whom it revealed: metastatic prostate adenocarcinoma, diffuse large B cell lymphoma, metastatic neuroendocrine tumour, and fibroinflammatory process. The biopsy failed in the fifth patient when the needle failed to penetrate the tumour despite good localization on CT. He eventually was diagnosed with fibrous meningioma. None of the patients had any complications.

Conclusion:

CT-guided core needle biopsy of an orbital mass is safe and effective in obtaining tissue for diagnosis. It is less successful in tumours of a hard consistency. It avoids major surgery and allows the use of radiotherapy, if needed, immediately after biopsy.

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Orbital and periocular lymphoma. Experience from a UK tertiary referral centre.

Author: Giorgio Albanese (rapid fire presentation)

Purpose:
To present clinical features, histology and long-term prognosis of all patients with biopsy-proven orbital and periocular lymphoma presenting to a tertiary referral centre in the UK.

Methods:
A retrospective chart review was carried out for all patients who had histological diagnosis of orbital and adnexal lymphoma from 2005 to 2018. All the biopsies were performed at a UK tertiary referral centre. The notes of 56 patients were reviewed. The main outcomes identified were clinical presentation, histology, rate of orbital involvement from primary disease and relative time interval, treatment and prognosis.

Results:
The median age was 66.7 years, and 57.1% of patients were female. Mean follow-up was 5.8 years. The most common presentation included ptosis (12.5%), lid oedema or fullness (12.5%), diplopia (10.7%), and proptosis (5.4%). Orbital involvement was extraconal in 95% of the cases, and bony erosion was found in only in 3.6%. 17.9% of patients had primary lymphoma elsewhere and the mean interval prior to the orbital presentation was 5 years. In 30% of patients the orbital histotype was different from the primary site. Extranodal Marginal Zone Lymphoma (EMZL) turned out to be the most common (34.1%). The histotype featuring the lowest Local Recurrence Rate (LRR) was EZML (0.41%) as opposite to Diffuse Large B cell Lymphoma (DLBCL) which featured the highest LLR at 7.3%.

Conclusion:
This is one of the largest single-centre series in the UK where histology of orbital and adnexal lymphoma is reported and correlated with LRR. The most common and least aggressive histotype found is EMZL. Change of histotype between primary site and orbital involvement is not a rare event. Biopsy remains key in the diagnostic work-up.

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Transforming care: A Pilot Study for a Virtual Oculoplastic Clinic

Author: Luke Michaels (rapid fire presentation)

Purpose:
National increasing demand for eye care services, the capacity crisis and changes to commissioning have led us to consider alternate ways of working. We need to balance safe and high quality patient care with efficient use of resources. We examine the feasibility and efficiency of a Virtual Oculoplastic service in a district general hospital (DGH) setting for patients with eyelid lesions.

Methods:
A cohort of 30 suitable patients with eyelid lesions were selected to attend a Virtual Oculoplastic clinic following triage of primary care referrals by a Consultant. Patients were informed in their appointment letter that this would be a screening appointment and that they would not be seen by a clinician. A basic proforma was developed with a small series of questions regarding lesion history which could be completed by non-clinical staff. The patients attended our Medical Illustration department and were seen by our Medical Photographers who completed the proformas using our Electronic Patient Record (EPR), Open Eyes. Lesions were photographed according to a standardised template and the images uploaded to the PACS system. The proforma and images were virtually assessed by a Consultant Oculoplastic surgeon within 2 weeks using the online EPR and patients were triaged into 3 groups: 1) No treatment required – Discharge, 2) List for excision or incision biopsy 3) Further tests arranged 4) Face to face clinic assessment required. Patients and their GP were informed of the outcome plan via letter.

Results:
At the point of abstract submission cohort numbers were insufficient to report any statically significant outcomes. However, results suggest faster yet safe patient throughput, higher discharge rates and more efficient use of resources.

Conclusion:
This pilot study utilising a multidisciplinary team and our EPR increased accessibility for new patients, reduced referral to treatment/ decision time and demonstrates more efficient use of resources. A virtual Oculoplastic service may be a successful way of delivering safe and effective patient care for selected patients.

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Funding for Oculoplastic Surgery by Clinical Commissioning Groups (CCGs) in England: A BOPSS member survey.

Author: Samantha Hunt (rapid fire presentation)

Purpose:
To evaluate clinicians’ experiences of CCG-imposed funding restrictions and access policies for oculoplastic procedures, and the perceived impact on patients and staff.

Methods:
An online survey was sent to all full BOPSS members. Questions investigated access policy for each procedure; who was involved in developing access criteria; logistics of funding applications; perceptions on ease of interactions with the CCG; and benefits and challenges of CCG policies.

Results:
29 responses were received. Key findings were:
Only 24% were involved with drafting local policies; of these, most felt some weight was given to their opinion and agreed in part with the final policy, but 2 did not agree at all with their CCG’s final policy. 35% find policies hard to follow, and 31% do not think their CCGs deal with applications fairly. However, 52% find the policies helpful when declining those unsuitable for NHS surgery. 62% said funding restrictions had prevented them undertaking an indicated procedure. 21% feel a patient has come to harm due to inability to access funding. Almost half reported that GPs refer most patients without funding. 48% spend more than 15 minutes a week on funding applications, and 25% more than 30 minutes.

Conclusion:
Policies to restrict funding of ‘low priority procedures’ may be necessary in these times of NHS hardship, but there appears to be something of a ‘postcode lottery’ in clinicians’ experience of using them. We propose that more input from oculoplastic consultants during drafting of policies and more reference to clinical evidence, as well as setting national rather than regional criteria, would make CCGs’ policies more helpful, and reduce risk of harm to patients.

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CCG funding of oculoplastics- is there a postcode lottery?

Author: Samantha Hunt (rapid fire presentation)

Purpose:
To examine variability of Clinical Commissioning Group-imposed funding restrictions and access policies for oculoplastic procedures in England.

Methods:
A freedom of information request was sent to all 206 CCGs seeking information about their funding policies for common oculoplastic procedures. Questions included who was involved in policy creation, which procedures are restricted and what access criteria apply. When signposted to online policies, these were reviewed.

Results:
All CCGs responded. Blepharoplasty is the procedure most frequently restricted, 198 CCGs having relevant policies. Of these, about half approve surgery by criterion based access (CBA), half via prior approval (PA). Ectropion repair is the most variably funded, with 119 CCGs having policies, of which 34% have unrestricted access, 27% CBA, 34% PA. 193 CCGs restrict access to benign skin lesion treatment, but only 18 (9%) have specific periocular policies. Significant funding variation also exists for all other procedures examined. Access criteria usually depend on impact on visual function, but some CCGs made additional allowance for specific aetiologies. Some groups of CCGs have adopted shared policies. Only 7% of CCGs confirmed specific oculoplastic involvement in policy design. An additional 11% reported involvement of eye care professionals. Although many policies are publicly available online, the authors found many to be unclear and suspect practical implementation may be challenging.

Conclusion:
Access policies vary significantly across England. Practical interpretation can be difficult for clinicians, perhaps due to lack of oculoplastic involvement in policy design. This leads to a ‘postcode lottery’ with implications for patient access and GP and surgeon workload.

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A novel repair technique for porous orbital implant exposure: long-term outcome

Author: Kent Chow (rapid fire presentation)

Purpose:
Implant exposure is the most common serious complication of porous orbital implants, and often requires surgical repair. This study aims to describe a new repair technique using a bulbar conjunctival pedicle flap and a labial mucous membrane patch graft, as well as to report its long-term results.

Methods:
A retrospective chart review was performed on all patients whose porous orbital implant exposures were repaired using this technique by a single surgeon (A. McNab) from 1999 to 2014.

Results:
Twenty-three patients were included. The maximal defect dimension ranged from 2 to 18 mm. The mean follow-up was 130 months (range 29 to 267 months). Eighteen patients (78%) were successfully treated with one repair surgery. At the final follow-up, 21 patients (91%) could comfortably wear a prosthetic eye, and 18 patients (78%) reported satisfactory cosmesis. Two patients (9%) developed small conjunctival cysts that were successfully excised.

Conclusion:
The combination of a bulbar conjunctival pedicle flap and a labial mucous membrane patch graft is a simple but effective technique in salvaging exposed porous orbital implants. Its long-term results are promising.

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Abstract Number: 301

Brow ptosis – Is transblepharoplasty internal browpexy suitable for everyone?

Author: arie nemet (eposter presentation)

Purpose:
Transcutaneous internal browpexy (IB) can provide patients with mild-to-moderate lateral brow ptosis, stabilization and modest lift of the lateral brow. Questions regarding effectiveness of this procedure and appropriate indications remain.

Methods:
We measured consecutive patients who underwent upper eyelid blepharoplasty with transblepharoplasty internal browpexy (TIB) 9/2014-12/2017. Pre- and postoperative brow elevation was assessed based on before and after photographs of each patient. Patient photographs were assessed for medial and lateral brow elevation, brow contouring and asymmetry. Optimal lateral brow elevation was classified as bilateral symmetrical and above the supraorbital rim for women, and symmetrical and at the supraorbital rim for men.

Results:
A total of 239 patients underwent bilateral TIB and 39 underwent unilateral TIB. Pre- and post-operative measurements were taken in 98 patients (41%), with an average elevation of the lateral brow position of 2.54 mm. Six patients had an underlying infection in the first postoperative week that resolved completely. Three patients underwent a second stage direct brow lift repair and 3 needed unrecognized ptosis repair as a second stage.

Conclusion:
Transblepharoplasty internal browpexy is an important tool that can be used in most patients with lateral and central brow ptosis, asymmetric brow ptosis and irregular contour of the brow. Additionally, browpexy adds to the success and longevity of upper blepharoplasty, while preventing early recurrence of lateral upper eyelid hooding. Patients with significant ptosis, heavy brows, medial greater than lateral ptosis, and post-facial palsy may not be good candidates for this procedure.

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Countess of Chester: Nasolacrimal Obstruction Pathway 1 – Outcome of Nasolacrimal Duct Intubation in Adults with Acquired Nasolacrimal Duct Obstruction

Author: Ivan Yip (eposter presentation)

Purpose:

Acquired nasolacrimal duct obstruction (NLDO) in adults is traditionally treated with a dacryocystorhinostomy (DCR). DCR is an invasive procedure. Nasolacrimal duct intubation (NLDI) is a less invasive procedure. It is mostly used in children with congenital NLDO. There is very little literature available on the success of NLDI in an adult cohort with acquired NLDO.

To evaluate the success of NLDI in the management of epiphora.

Methods:

Retrospective audit of all patients aged 18 and over at a single centre who underwent NLDI from December 2013 to December 2018. NLDI operations were under general anaesthetic and a monoka grande stent placed in situ.

Results:

Ninety-nine NLDI were carried out. Epiphora was relieved in 59.3% (54/91) patients. There were no peri- or post-operative complications. The stents were removed on average 4.3 months after the procedure and average follow up was 39.1 months. Thirty-seven patients did not get relief of symptoms, 30 of these patients underwent endoscopic DCR procedures and 4 of these patients eventually required an external DCR.

Conclusion:

NLDI can relieve symptoms of epiphora caused by NLDO. It is much less invasive than a DCR. Offering NLDI to patients with NLDO may help prevent patients undergoing the more invasive and time consuming DCR.

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Countess of Chester: Nasolacrimal Obstruction Pathway 2 – Outcomes of 10 years of Endoscopic Dacryocystorhinostomy

Author: Ivan Yip (eposter presentation)

Purpose:
Endoscopic dacryocystorhinostomy (DCR) is less invasive than an external DCR and avoids the creation of a cutaneous scar. It has however traditionally been reported as having a lower success rate than external DCR. There is limited evidence on the long term success of this procedure.

To evaluate the long-term success of endoscopic DCR in the management of epiphora.

**Methods:**
Retrospective audit of all patients at a single centre undergoing endoscopic DCR with lacrimal monoka grande tube intubation from January 2009 to December 2018 inclusive.

**Results:**
One hundred and eighty-six endonasal DCR operations were carried out. Functional success rate achieved in 85.5% (159/186). There were no intra-operative complications. Mean follow up was 51.5 months.

**Conclusion:**
Epiphora related to nasolacrimal duct obstruction can be effectively managed with endoscopic DCR. There is a high rate of functional improvement with good long term success.

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Conjunctival crystal storing histiocytosis in isolation

Author: Caroline Wilde (eposter presentation)

Purpose:

Crystal storing histiocytosis (CSH) is a rare disorder in which reactive histiocytes filled with cytoplasmic immunoglobulin crystals accumulate in the bone marrow and numerous other extramedullary sites. It can affect any organ site but the head and neck is most common. In 90% of cases, it is associated with an underlying lymphoproliferative or plasma cell disorder (LP-PCD). We present the first reported case of ocular CSH occurring in isolation.

Methods:

Case report and literature review.

Results:

A 76-year-old caucasian man presented with a large medial conjunctival mass with dilated tortuous vessels. Biopsy showed oedematous stroma with collections of large vacuolated cells containing eosinophilic crystalline deposits within their cytoplasm. A diagnosis of CSH was made. MRI orbits showed a soft tissue mass around the medial side of the right globe extending posteriorly without any signs of invasion. The patient was evaluated by haematology but no additional foci of CSH were found. Serum protein electrophoresis did not detect a paraprotein and immunoglobulin were normal. A bone marrow biopsy was normocellular. Systemic assessment and investigation did not identify any further foci of CSH or underlying malignancy, He remains under observation.

Conclusion:

This case illustrates a very rare example of conjunctival CSH with no underlying malignancy identified at 18 months follow up. It is important to have a high index of suspicion and to investigate patients for LP-PCD. CSH may precede the diagnosis of a LP-PCD, and therefore patients should be kept under a period of surveillance.

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Link to PDF ePoster
Abstract Number:305

Long term outcomes of upper eyelid loading with modular platinum segment chains for lagophthalmos

Author: Katja Ullrich (eposter presentation)

Purpose:
To report a 5-year series with longer term outcomes of individually sutured platinum segment chains for upper eyelid loading in a single referral centre.

Methods:
Single-centre, prospective audit. Segments of 0.4g and 0.2g were assembled to create a desired weight and placed in supratarsal location after levator aponeurosis recession. Primary outcome measures were lagophthalmos, upper eyelid margin to reflex distance (MRD1), complications and, when relevant, static and dynamic validated scoring for facial palsy patients. Secondary outcome measures were visual acuity, ptosis, need for further surgery and cosmesis.

Results:
Between July 2013-2018, a total of 195 upper eyelids underwent loading. Of them 122 eyelids (63%) of 117 patients received platinum segment chains (mean weight $1.2\pm0.2$ g ranging $0.8$–$1.6$ g) for lagophthalmos and were included in the study. All grades of lagophthalmos were reduced significantly (P<0.0001). Cosmesis was graded as having no prominence in 83 % of eyelids; the eyelids were graded as having normal contour in 73 % of cases. Overall, 23.0% (28 eyelids) underwent weight-related revision surgery: removal of entire segment chain (5.7%, 7 eyelids) and a single segment (4.1%, 5 eyelids), addition of a single segment (3.3%, 4 eyelids), repositioning (3.3%, 4 eyelids) and ptosis correction (9.8%, 12 eyelids). Three segment chains became exposed and consequentially were removed.

Conclusion:
Platinum segments are FDA approved and provide benefits of platinum chains with the additional advantages of allowing postoperative adjustability, being thinner, inducing less visible prominence and with less likelihood of allergy than gold. They are an ideal first-line loading implant for lagophthalmos.

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Link to PDF ePoster
Abstract Number:306

‘Through the looking glass’ – History of implants for the anophthalmic socket

Author: Joyce Burns (eposter presentation)

Purpose:
Review the history of anophthalmic socket surgery. Describe the development of implants for the anophthalmic socket. Become familiar with CT & MR imaging features of these implants. List the MR imaging safety profiles of some of the implants still in clinical use

Methods:
The absence of the eye or its contents leads to major changes in the physiology and dynamics of the orbit as well as cosmesis and it is necessary to replace the orbital volume. In this pictorial review we explore the evolution of orbital implants for the anophthalmic socket through the 20th century. From glass to hydroxyapatite, we use CT & MR imaging to describe the development of bio-materials used in orbital implants. We also discuss the advantages and limitations of these implants including MRI safety of some the implants still in use

Results:
History:
Classification and type of implants:
CT & MRI features:
Non-integrated:
Glass
Polymethylmethacrylate (PMMA)
Silicone
Quasi-integrated:
Castroveijo
Roper-Hall magnetic implant
Baseball implant
Integrated:
Hydroxyapatite

Conclusion:
This innovative pictorial review using CT and MR imaging describes the development of bio-material used in implants for the anophthalmic socket through the 20th century. The MRI safety features of some the implants are also reviewed. The role of CT and MR imaging examination of the anophthalmic socket and orbital implants is constantly expanding and we hope, this review will help in the development of new and safer implants

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Hidradenocarcinoma of the eyelid treated with excision and cryotherapy

Author: Oliver Chadwick (eposter presentation)

Purpose:
We present a rare case of hidradenocarcinoma in the eyelid which developed 13 years after excision of a hidradenoma in the same location.

Methods:
A 79 year old man presented with extensive recurrence of a previously excised right upper eyelid tumour. 13 years previously a hidradenoma had been excised from the same location. Incisional biopsies demonstrated features of an atypical hidradenoma; however following clinical-pathological correlation this case was managed as a hidradenocarcinoma. The lesion was treated with debulking surgery of the anterior lamella and skin graft reconstruction. Pathological examination of the excised specimen confirmed the diagnosis of hidradenocarcinoma extending to the excision margins. Further treatment of cryotherapy to the right eyelid was performed with excellent results and the patient remains well with no evidence of recurrence or metastasis.

Results:
Hidradenocarcinomas are very rare, aggressive malignant eccrine gland tumours which most commonly occur in the head and neck region. Histological differentiation from benign hidradenomas is challenging and may require clinical-pathological correlation. There is very limited literature relating to the management of these tumours in the eyelid. Our case was successfully managed with surgical excision and adjuvant cryotherapy demonstrating the utility of this approach.

Conclusion:
This case presents challenges both in the diagnosis and management of this rare malignancy as well as highlighting the role of multi-disciplinary team working. Our experience adds to a very limited literature regarding hidradenocarcinoma of the eyelid.

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Case series of superior orbital fissure (SOFS) and orbital apex syndrome (OAS)

Author: Lee Vickie (eposter presentation)

Purpose:
We present a case series of 7 patients seen at a regional orbital unit with SOFS and OAS as a result of trauma or following orbital surgery.

Methods:
Cases with confirmed SOFS and OAS were identified from attendances at a London joint orbital clinic (maxillofacial and ophthalmology) between 2013 and 2019.

Results:
SOFS and OAS was found in 3 cases post trauma, 2 cases post open reduction internal fixation surgery, 1 case post thyroid orbital decompression and 1 case post orbital intra-conal biopsy (meningioma). The most common features were diplopia (7/7), a pupil-involving orbital third nerve palsy (4/7), paraesthesia (3/7), enophthalmos (3/7), ptosis (3/7), a fourth nerve palsy (2/7), proptosis (2/7), choroidal rupture (1/7), no perception of light (1/7). Most patients had a partial or complete recovery.

Conclusion:
Our case series highlights the importance of meticulous assessment of patients following orbital trauma and pre and post orbital surgery, including ocular movements and pupillary reactions. Early identification of SOFS and OAS helps determine the need for further surgery or conservative measures and allows patients to receive appropriate counselling and manage their expectations.

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Author: Dana Ahnood (eposter presentation)

Purpose:
Congenital dacryocystocele is a congenital cystic swelling caused by trapped fluid in the lacrimal sac associated with nasolacrimal obstruction. With modern ultrasonography techniques the condition can be picked up antenatally, although most cases resolve spontaneously before birth. The aim of this study is to present the outcomes of two cases of congenital dacryocystocele detected on antenatal ultrasonography that failed to resolve before delivery.

Methods:
Two cases of persistent congenital dacryocystocele were detected on antenatal ultrasonography within the last two years. The medical records of these patients were reviewed for maternal and neonatal features including size of dacryocystoceles, gestational age at detection and outcome.

Results:
In case 1, bilateral 13 mm smooth cysts were detected on antenatal ultrasound at 35 weeks of gestational age. These resolved with conservative measures within 10 weeks of birth.

In case 2, a right sided 11mm x 11mm cystic lesion at the medial canthus was detected at 37 weeks of gestational age. This resolved following syringing and intubation with a Crawford tube at 6 months of age.

Conclusion:
A better understanding of the outcome of dacryocystoceles detected on prenatal ultrasonography can help alleviate parents’ anxiety and help clinicians predict the prognosis of this condition. Our case series suggests that antenatal finding of large dacryocystoceles on ultrasonography may be managed conservatively initially, with surgical management reserved for cases that fail to resolve. The duration of continued conservative treatment of dacryocystoceles not complicated by dacryocystitis is not known but it seems reasonable to wait for a period of 6 months.

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Abstract Number: 310

Post-operative Epistaxis, Pain and Patient Satisfaction in External and Endonasal Dacryocystorhinostomy

Author: Amun Sachdev (eposter presentation)

Purpose:
To evaluate prevalence of post-operative epistaxis and pain in patients who underwent external or endoscopic dacryocystorhinostomy (DCR), in order to evaluate best pre-, intra- and post-operative practice.

Methods:
Retrospective, single-centre, review of 54 cases between 2017-18 under the care of a single consultant. Data on anticoagulant use, epistaxis prevalence, pain score (0-10) and overall satisfaction (0-5) were surveyed by telephone for day of surgery (day 0) and afterwards (day 1+).

Results:
27 cases underwent external DCR, 5 were on anticoagulants; 27 underwent endoscopic DCR, 4 were on anticoagulants. There was no association between epistaxis and anticoagulant use. Overall, epistaxis prevalence on day 0 and day 1+ respectively was 13% and 9% for old blood, 15% and 13% for spotting, 7% and 2% for mild epistaxis. 2 patients had significant epistaxis after endo-DCR; one blew his nose soon after surgery, the other was on rivaroxaban and required re-admission. There was no significant difference in epistaxis prevalence between the groups. Pain scores on day 0 and day 1+ respectively were 1.1 and 0.9 for external DCR and 1.5 and 1.3 for endonasal DCR (no significant difference; p = 0.14 and 0.11). Analgesia use was 26% and 33% respectively (p = 0.28). Satisfaction scored 4.7 for external DCR; 4.5 for endonasal DCR (p = 0.21). Scores were 4.5 and 4.7 for those discharged on day 0 and day 1 respectively (p = 0.31).

Conclusion:
We found no association between epistaxis and anticoagulant use, no difference in epistaxis between external and endonasal DCR, no difference in pain between external and endonasal DCR and neither DCR technique nor duration of hospital stay affected patient satisfaction.

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Current indications and outcomes of oral mucosal membrane grafts in ocular surface and appendage reconstruction

Author: Selina Khan (eposter presentation)

Purpose:

To evaluate current published literature for use of autologous oral mucosal membrane grafts (OMMG) as primary interventions for reconstruction of the ocular surface and appendages.

Methods:

We searched the following electronic databases for the period January 1947 to January 10, 2019: MEDLINE(R), EMBASE, Web of Science and Cochrane library. Outcome measures included best-corrected visual acuity, clinical corneal surface stability, recurrence of signs of cicatrisation.

Results:

92 articles were identified all from retrospective, non-randomised studies. OMMG are indicated for use in cases of cicatrising ocular surface diseases and total limbal stem cell deficiency (LSCD). These may include: Steven’s Johnson Syndrome (SJS), Toxic Epidermal Necrolysis, chemical injury, thermal burns, trauma, post-ocular surgery and pterygia. Evidence is emerging for use in immune-mediated eye disease such as vernal keratoconjunctivitis. Success in fornix and posterior lamella eyelid reconstruction, orbital reconstruction and in complex dacrocystorhinostomy has also been reported. Larger studies are paving the way for more robust evidence. One such study reported over 93% of patients with either stable or improved BCVA with OMMG for lid keratisation secondary to SJS (n=393).

Conclusion:

Autologous oral mucosal membrane grafts or cultivated oral mucosal epithelial cells appear to be an efficient, safe and successful method for managing severe ocular surface disease necessitating reconstruction. Extended indications in a case-by-case scenario include keratoprosthesis, eyelid and orbit reconstruction; and reflects the case-by-case approach which should be adopted by the clinician to determine optimal patient management.

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A Modified Lateral Periosteal Flap for Reconstruction of Eyelid Defects

Author: Katja Ullrich (eposter presentation)

Purpose:
In reconstruction of the lower eyelid defects, it is essential to achieve good eyelid position with appropriate vectors of the lateral eyelid, to achieve good functional and cosmetic outcomes.

Methods:
We describe a technique of using periosteum from the lateral orbital rim to replace the tarsal plate.

The full thickness eyelid defect should be no more than 30%. The periosteal flap can be combined with other techniques if the defect is larger. The lateral orbital rim is exposed with the aid of a lateral canthotomy if needed. The length of the defect is assessed: the periosteal flap should be short enough to put the eyelid on mild traction but long enough to avoid undue tension and possible dehiscence.

Two parallel vertical cuts are made into the periosteum following the lateral orbital rim, approximately 3 mm apart and then joined at one end. For the lower eyelid, the flap should be based superiorly, for the upper eyelid it is best based inferiorly. It can be elevated from the lateral orbital rim using a periosteal elevator or dissected with spring scissors. The edges of the flap are sutured to the remaining tarsal plate with two parallel 5.0 vicryl sutures. The posterior lamella should be in good position and under mild tension. The anterior lamella can be repaired with a local flap or skin graft.

Results:
We present 7 patients ranging in age from 61-93 years (mean age 78 years). The periosteal flap was combined with a free tarsal graft in 2 patients and a Hughes flap in 1 patient. At the first postoperative follow-up (approximately 2 weeks) 5 patients (71%) had similar or only slightly different eyelid contour and all 7 patients (100%) had a normal eyelid vector. At the most recent follow-up, all 7 patients had normal or only slightly different eyelid contour and all 7 patients (100%) had a normal eyelid vector. Follow up was 9-18 months. Complications included dehiscence requiring repeat repair (n = 1) and suture allergy (n = 1). Only one patient reported post-operative discomfort.

Conclusion:
A modified approach to creating a periosteal flap from the lateral orbital rim can involve less dissection whilst providing similar outcomes to traditional approaches.

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Lepromatous leprosy presenting as unilateral dermatochalasis

Author: Mohammad Sarfraz (eposter presentation)

Purpose:
We present a case report of marked unilateral dermatochalasis in a gentleman of Nepalese origin found to have a diagnosis of lepromatous leprosy (LL) with histological confirmation.

Methods:
A 56-year-old man of Nepalese origin was seen in the oculoplastics clinic with a 1 year history of gradually worsening swelling and drooping of his left upper lid.

Results:
On examination, there was left upper eyelid dermatochalasis with associated eyebrow thinning and thickened, coarse facial skin (leonine facial appearance). He underwent a left upper lid debulking procedure and blepharoplasty with the specimen sent for histology. This demonstrated skin diffusely infiltrated by bubbly histiocytes, many with uni-vacuoles (Histology slides available). A Wade-Fite stain showed dense purple colonies of acid fast, mycobacteria leprae bacilli within the vacuoles and present within the peripheral nerve tissue. The features were those of lepromatous leprosy (type LL). The patient was referred to the UK national leprosy centre and multidrug treatment was commenced.

Conclusion:
Ocular involvement in leprosy is estimated to be 70-75%, about 10-50% of leprosy patients suffer from severe ocular symptoms and blindness occurs in about 5% of patients. We have yet to find a case of dermatochalasis alone leading to a diagnosis of lepromatous leprosy. The diagnosis of LL is typically a clinical one but ophthalmic presentations of the disease require a high index of suspicion aided by histopathological analysis. With an increasing trend towards international population migration, vigilance for tropical infections manifesting in Western ophthalmology departments is required, for prompt treatment and the prevention of blinding complications.

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Predictability of Ptosis Surgery Outcomes in Patients being Treated for Glaucoma

Author: Rupinder Chahal (eposter presentation)

Purpose:
We investigate the predictability of ptosis surgery outcomes in patients undergoing treatment for glaucoma. There are presently no studies in literature.

Methods:
374 consecutive adult ptosis surgeries, performed under the care of a single consultant over a 5-year period, were analysed retrospectively. 32 eyes (9%) were of glaucoma patients: 100% drop therapy; 19% additional glaucoma surgery. All patients had anterior approach levator advancement. Follow up: week 2; month 3; as required.

Results:
44% had varying degrees of lagophthalmos at week 2. One trabeculectomy patient developed a contour abnormality. 19% had persisting lagophthalmos at 3 months with varying ocular surface issues. 6% had persistent, severe lagophthalmos with exposure keratopathy, requiring subsequent lid lowering. One with Baerveldt tube, had ongoing 3mm lagophthalmos with exposure keratopathy post recession, requiring amniotic membrane with tarsorraphy. Disproportionate tissue scarring perioperatively was noted in both recession cases. Alongside 100% prostaglandin analogue (PGA) use, 83% in the ‘persisting lagophthalmos’ group (A), were also using carbonic anhydrase inhibitors (CAH), in comparison to 33% in the ‘no lagophthalmos’ group (B), with 50% or less using other glaucoma drop subgroups. 66% had glaucoma surgery in A, compared to 11% in B.

Conclusion:
Long-term use of glaucoma drops, more specifically PGA and CAH, can lead to a lower predictability of outcomes, and a higher incidence of overcorrection with consequential ocular surface issues. We explore possible etiologies relating to PGA and CAH use, and bleb related lid retraction. We discuss meticulous pre-operative planning, surgical modifications, and perioperative lid height titration.

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Abstract Number: 315

A novel radiological classification of thyroid eye disease.

Author: Varajini Joganathan (eposter presentation)

Purpose:

Standard radiological reporting of thyroid orbital imaging does not provide any correlation between thyroid eye related disease activity and radiological architecture. We propose the use of a radiological scoring system to determine the likelihood of active thyroid disease based on radiological changes.

Methods:

Retrospective analysis of Computerised Tomography imaging of the orbits and correlation with thyroid eye disease (TED).

Results:

Analysis of CT orbital imaging of 20 patients (Male: Female, 7: 1, mean age 52.3 years) within 6 weeks of clinical diagnosis of TED. Imaging of 5 patients without a diagnosis thyroid eye disease was analysed as control. Radiological readers were blinded. Radiological morphological data was collected and scored: Presence of proptosis (1), Increased extraconal and muscle fat (0-2), spindle muscular recti configuration (0-4), Quadrant of apical crowding (0-4), Tenting of optic nerve (0-1). Seven patients had active thyroid eye disease (Clinical activity score (CAS) >/3) with radiological scoring (7-11; mean 9) and 13 patients had CAS score < 3 and a radiological scoring (1-4; mean 3). There was a positive correlation between CAS score and radiological scoring (r=0.856).

Conclusion:

The radiological classification system provides an accurate radiological observational tool in determining the likelihood of active thyroid eye disease. Greater than 50% scoring was associated with active thyroid eye disease clinically. The information can guide radiologists’ reporting as well the treating physician and surgeon towards appropriate and timely management. Inter-assessor variability is a limiting factor. A larger and prospective study will increase our comprehension of radiological behaviour of thyroid eye disease.

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Erysipelas following cicatricial ectropion surgery

Author: Michael James Wearne (eposter presentation)

Purpose:
To present a rare case of superficial facial cellulitis following lower eyelid cicatricial ectropion repair with a full thickness skin graft

Methods:
Case note and literature review

Results:
An 80 year old lady, with previous history of Moh’s surgery for extensive basal cell carcinoma of the left tear trough area, underwent a revision procedure for a cicatricial ectropion using a full thickness skin graft. Three days following surgery she presented to the emergency department with a 48 hour history of rigors, fever and a rapidly spreading facial rash. Examination of the face revealed a striking raised tender erythematous area with a well-defined border extending bilaterally in the maxillary area. There were no other systemic findings and ocular examination was normal. Blood tests were unremarkable apart from slightly raised monocytes. The facial swelling and rash settled well following intravenous cefuroxime and metronidazole. Interestingly, the patient described having a similar episode of erysipelas following lower limb surgery several years ago.

Conclusion:
Erysipelas is a rare bacterial skin infection involving the upper dermis that characteristically extends into the superficial cutaneous lymphatics. It is typically a tender, intensely erythematous, indurated plaque with a sharply demarcated border. The latter feature can help differentiate it from cellulitis which involves the subcutaneous plane. The primary cause is Streptococcus Group A and it is believed that bacterial inoculation into an area of skin trauma is the initial event. Thus, local factors, such as venous insufficiency, lymphoedema and surgical incisions have been implicated. While most cases of erysipelas resolve without sequelae following appropriate antibiotic therapy, prompt exclusion of other skin conditions and treatment is crucial because of potentially rapid progression.

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A retrospective case series of necrotising fasciitis over a decade – experience at a District general Hospital

Author: pavitra garala (eposter presentation)

Purpose:
Necrotising fasciitis is a serious but rare bacterial condition causing tissue necrosis requiring prompt diagnosis and management. The UK incidence is estimated to be around 0.04/1000 person-years. Our aim was to describe our experience of necrotising fasciitis in the Wye Valley region and evaluate the causative factors, management and outcomes of these patients.

Methods:
Data on cross-specialty cases admitted to Hereford County Hospital between 2008 and January 2019 was collected using electronic and paper records. Data including anatomical location, investigations and management including antibiotics, surgical intervention and ITU admission were collated and the LRINEC(Laboratory Risk Indicator for Necrotizing Fasciitis) score was calculated.

Results:
Hereford Hospital serves a population of 210,000. 30 cases of necrotising fasciitis were treated during this period. Locations of infection included the peri-ocular region, limbs, breast, buttock, groin and the abdomen. Several patients had poly microbial involvement with the majority being infected with anaerobic organisms, namely Group A streptococcus. All patients underwent surgical intervention and ITU stay. The mortality rate was 27%. The average LRINEC score was 7.7, with the highest score being 11.

Conclusion:
Necrotising fasciitis is a life threatening condition with an acute reported mortality rate of 17-27%, with some reports as high as 75%. This highlights and reiterates the importance of prompt review, diagnosis and management of these patients. Our case highlights the importance of considering this diagnosis in patients attending eye casualty with a cellulitic picture to ensure appropriate and timely management is undertaken.

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Does lagophthalmos change on lying supine after upper eyelid platinum segment chain loading?

Author: Katja Ullrich (eposter presentation)

Purpose:
Facial nerve palsy (FNP) often significantly affects eyelid position and blink. Platinum segment chains (PSC) have been shown to improve lagophthalmos in patients with facial palsy. Debate exists as to the effectiveness of weights placed in the supratarsal location when the patient lies supine. We report our findings to answer this question.

Methods:
Prospective case series of patients with FNP following PSC insertion. Lagophthalmos on blink, gentle and forced closure was observed in the seated position, lying flat supine at 0 degrees, lying supine with one pillow and lying on the side, with the non-facial palsy side to the pillow.

Results:
20 eyes with PSC for facial palsy-related lagophthalmos were assessed in 19 patients. There was no statistical difference in the amount of lagophthalmos between sitting up and lying flat with no pillow on gentle closure (P = 0.0804) and blink (P = 0.1567). Clinically, 12 out of the 20 eyes had no change in lagophthalmos on gentle closure when sitting up compared to supine (no pillow). The remaining 8 eyes had an increase of lagophthalmos of mean 2.3 mm (range 1-6mm) when lying supine (no pillow) and mean 2.2 mm (range 1-5mm) when lying supine with one pillow. 50% of patients have ongoing requirements for evening lubricating ointment application but only one patient in our cohort experienced morning ocular symptoms. No patient was taping their eyelids.

Conclusion:
The prevalence of lagophthalmos increasing on gentle closure when supine is 40%, with a mean increase of 2.3mm. Statistically, there is no difference between gentle closure in the sitting and supine position. Provided patients use nocturnal lubricant, they remain asymptomatic and do not require taping or surgery.

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**Modified Johnson Square Procedure for Periocular Lentigo Maligna and Lentigo Maligna Melanoma: A Single Centre UK Study**

**Author:** Huw Oliphant (*eposter presentation*)

**Purpose:**

Lentigo maligna (LM) and lentigo maligna melanoma (LMM) in the periocular region are rare entities, and are often difficult to manage due to poorly defined borders and the presence of sub clinical spread. Recurrence rates for LM/LMM with standard excision techniques range from 9-31%. The purpose of this case series is to demonstrate outcomes using a modified Johnson square procedure for LM and LMM in the periocular region.

**Methods:**

Retrospective review was undertaken for all patients undergoing modified Johnson square procedure for LM/LMM in a single centre (Royal Victoria Infirmary, Newcastle). Modified Johnson square procedure involves marking a 2-3mm margin around the lesion, with an additional 2-3mm margin around the first to complete a total 5mm margin. These strips are assessed using en face permanent section histological analysis by fellowship trained Mohs surgeons, with further margins taken where positivity is found.

**Results:**

Twenty eight patients were included. Average age was 73 (range 50-95). Twenty patients were categorised as LM, 8 LMM, with 26 representing primary disease, and 2 recurrent. Mean duration of lesion was 44 months (range 4-180 months). Mean number of stages required was 2 (range 1-5). Mean follow was 18 months (range 6-51 months). Mean diameter of pre operative lesions was 19.5 x 13.8mm, mean post excision defect was 32.7 x 21.9mm. Two patients had local recurrence (7.1%). All defects underwent primary closure, or delayed closure under oculoplastics.

**Conclusion:**

To our knowledge this represents the largest cohort of patients with periocular LM/LMM treated using a modified Johnson square procedure, interpreted using en face permanent section histological specimens by a Mohs surgeon. The recurrence rate is lower than standard excision techniques, though slightly higher than some quoted microscopic margin control techniques.

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Access to Intraoperative Margin Control: A Survey of the British Oculoplastic Surgery Society

Author: Huw Oliphant (eposter presentation)

Purpose:
Intraoperative margin control (IOMC) modalities such as fast frozen section (FFS), fast paraffin (FP) and Mohs micrographic surgery (MMS) are increasingly being used for tumours in the periocular region. Such modalities are proven to have a lower rate of recurrence than standard techniques. The purpose of this survey was to assess attitudes and access to these three forms of IOMC amongst BOPSS members.

Methods:
An online survey was disseminated via e-mail correspondence to full members of BOPSS. The survey was hosted using Qualtrics software via the University of Sussex. Participants were asked to respond to all questions though were able to skip questions if required. Questions centred around attitudes and access to IOMC.

Results:
Overall response rate was 64/165 full BOPSS members (38.8% response rate). Fourteen out of 64 respondents (21.8%) had access to MMS in their own institution, though 23/64 (35.9%) had access to MMS in a neighbouring trust. Seven respondents (10.9%) reported no access to MMS. FFS was available to 29 respondents (45.3%) in their own institution, and FP was available to 37 respondents (57.8%) in their own institution. Fifty eight members (90.6%) would consider IOMC for ill defined BCC, and 27 respondents (42.2%) for nodular BCC. Fifty two respondents (81.3%) would consider IOMC for SCC of the eyelid.

Conclusion:
This study highlights that despite widespread agreement that IOMC is important for some periocular tumours, there is wide variation in availability and utilisation of IOMC amongst oculoplastic surgeons within the British Isles. Greater consistency of IOMC services in the UK may help provide a wider range of options for high risk tumours and improve patient outcomes.

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Link to PDF ePoster
Abstract Number:321

Maintaining quality of life – Electrochemotherapy for palliative periocular malignancy

Author: Katja Ullrich (eposter presentation)

Purpose:

Electrochemotherapy (ECT) has been used successfully for treatment of recurrent head and neck cancers. We report four cases of metastatic periocular tumours that were treated palliatively with ECT.

Methods:

Case series of 4 palliative patients with widespread metastatic malignancy and periocular involvement. All patients were offered surgical resection but preferred less involved measures. We report technique and outcomes.

Results:

83 year-old man with metastatic malignant melanoma (MM) including nodules in the right medial orbit and medial canthus. After ECT treatment, he was able to open his eye again, the nodules decreased in size and he had less pain.

72 year-old man with metastatic MM. He had painful metastatic nodules on the forehead and the left medial canthus. After ECT, he had initially increasing pain due to tumour necrosis for 3 days, then significant pain relief.

93 year-old man with widespread palliative multiple myeloma and left forehead SCC, causing pain due to perineural invasion. He underwent ECT treatment, resulting in pain relief and shrinkage of the SCC.

91 year-old woman with lower eyelid sebaceous cell carcinoma. She previously underwent excision with 4mm clearance and negative conjunctival map biopsies. She failed to attend multiple appointments and returned with loco-regional recurrence and lymph node metastasis. After refusing further workup, underwent ECT to decreased the size of her lower lid tumor mass.

3 patients have died due to their disease. All experienced an improvement in their pain. None of the patients developed significant periocular inflammation.

Conclusion:

Electrochemotherapy may be a useful palliative treatment for periocular tumors to improve pain and reduces tumour volume.

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Second line immunosuppression with mycophenolate in Graves Ophthalmopathy.

Author: Bejal Shah (eposter presentation)

Purpose:
Graves Ophthalmopathy (GO) is a complex condition with the potential for significant visual disability. The EUGOGO consensus for first line treatment in active moderate/severe disease is 12 once weekly course of intravenous steroids (IVMP). Although this has good efficacy (improvement seen in up to 63%) sustaining the treatment response and avoiding relapse over the disease course has proven challenging. The MINGO study has shown promise for mycophenolate (MMF) as a second line agent.

Methods:
Retrospective review of 19 patients with moderate to severe GO treated in an MDT thyroid eye clinic and started on MMF post IVMP. Data collection included reported symptoms, clinical findings and clinical activity score (CAS score) before and after treatment, side effects, adverse events and the need for re-treatment with steroids.

Results:
Our analysis included 8 males and 11 females with a median age of 53, 11 of whom had DON. A mean reduction in the CAS score of 2.13 (range 0 to 6) was found following initiation of MMF (p<0.0001). Follow up duration ranged from 1 to 10 months and the dose of MMF ranged from 500mg to 2g daily. Most patients have reported improvement in pain with over 80% reporting an improvement in diplopia and a third showing improvement in periorbital swelling. Only one patient required maintenance with concurrent oral prednisolone. One was refractory to MMF and was switched to ciclosporin. One discontinued due to muscle cramps, and another was excluded due to incomplete data. No significant adverse events were reported.

Conclusion:
Our experience shows promise for the role of MMF as a second line agent. We have seen an encouraging improvement in disease activity with a safety profile comparable if not superior to steroids.

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To implant or not to implant: A 12 year review of single-centre outcomes of emergency orbital eviscerations with orbital implants.

Author: Stephanie Chiu (eposter presentation)

Purpose:

To evaluate the outcomes following emergency eviscerations with orbital implants in a tertiary centre. The primary objective was the rate of orbital implant exposure, in a situation where eye removal was necessary in an emergency setting.

Methods:

All patients who underwent evisceration in this unit between January 2006-August 2018, inclusive, were identified. Only the patients who had an evisceration in an acute setting where the globe was deemed no longer intact or at a high risk of spontaneous perforation were included.

Results:

There were 26 eyes in 26 patients. The indications for emergency evisceration were infectious corneal perforation (16), non-infectious corneal perforation (3), endophthalmitis ± corneal perforation (5), and globe rupture (2). Primary orbital implantation was done in all except for 2, due to the extent of infection. The implants used were acrylic (15), silicone (4) and Medpor (5). There were 2 cases of implant exposure (silicone – 1, acrylic – 1). Both cases required emergency eviscerations for infectious corneal perforation. The silicone case was treated with replacement by another silicone implant following scleral reformation. The acrylic case was treated with implant removal and replacement with a dermis fat graft.

Conclusion:

Performing emergency orbital evisceration and implantation is relatively uncommon. We had 26 cases in 12 years. The implant exposure rate was 2/26 (7.6%). We would strongly advocate primary orbital implantation at the same time as the emergency evisceration. The implant exposure rate following primary orbital implantation is acceptable; and with or without implant exposure, patients have good functional outcomes.

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Link to PDF ePoster
Solitary Fibrous Tumor of the orbit. The Leicester experience.

Author: Evangelos Lokovitis (eposter presentation)

Purpose:
To present a case series of patients with Solitary Fibrous Tumor (SFT) of the orbit which represents a very rare entity.

Methods:
Retrospective case series of 7 patients with orbital SFT treated between 2010 and 2018 at a tertiary referral center in UK were included in this study. Clinical, radiological, histopathological features and management outcome of patients with orbital SFT were recorded. Recurrences and malignant transformation were evaluated. A correlation between radiological, clinical and histological features was performed as to identify outcome predictors of malignant transformation or local recurrence.

Results:
7 patients (4 males and 3 females) with a mean age of 51 years (range: 21-87) were included to our study. Mean time of presentation of symptoms was 5 months (range: 2-12). Painless proptosis was the initial presentation in 4 cases while in 3 cases the initial main symptom was lid swelling with the presence of a firm mass in the orbital rim. 2 patients had restricted motility on presentation. Mean follow up period was 5 years (range: 3-9). Histopathology and immunohistochemistry studies were performed. All tumors were positive for CD34. Complete excisional biopsy was performed in 3 cases while a debulking biopsy was performed in the remainder 4 cases. 2 patients required more than one biopsy due to local recurrences. One case had malignant transformation and exenteration was performed. No surgical complication was noted in our study group.

Conclusion:
Solitary fibrous tumor is a rare mesenchymal tumor which rarely involves the orbit. Malignant transformation is uncommon however, whenever diagnosed can have devastating consequences. Long term follow-up with routine MRI of the orbits is mandatory.

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Link to PDF ePoster
Outcomes of autostable (self-retaining) stents

Author: Valerie Juniat (eposter presentation)

Purpose:

Punctal and canalicular obstruction and stenosis are common causes of epiphora. Punctal dilation, and canalicular trephination with stenting can improve the patency and symptoms. We report the outcomes of Autostable Bicanalicular Silicone Stents (FCI) for punctal and canalicular disease.

Methods:

This is a multicentre, retrospective review of patients who had insertion of autostable stents as primary treatment for epiphora secondary to punctal or canalicular pathology. Data collected include the clinical indication for usage, rate of improvement or resolution of epiphora, postoperative complications, and requirement for further treatment in persistent epiphora following stent insertion.

Results:

51 cases (42 patients, 9 bilateral cases) were collected across 6 centres. The most common indication was common canalicular stenosis (34/51, 68%). Average follow up was 221 days (range 3 to 1884 days). Where recorded, 6/48 (13%) reported resolution of symptoms, 22/48 (46%) some improvement and 20/48 (42%) no improvement. 34/51 (67%) stents extruded prior to planned removal on average 17 days after insertion (range 1-73). In the planned stent removal group (mean 70 (range 14-180) days after insertion), 3/14 (21%) had resolution of symptoms, 6/14 (43%) had some improvement and 5/14 (36%) had no improvement. In the extruded group, where recorded, 3/32 (9%) had resolution of symptoms, 16/32 (50%) had some improvement and 13/32 (41%) had no improvement. 15 patients required further treatment.

Conclusion:

Canalicular Autostable Stents have modest success rates and a tendency to spontaneous extrusion. Alternative treatments and stent designs are required for canalicular stenosis and obstruction.

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Abstract Number: 326

Novel Use of Stereotactic Radiosurgery for Orbital Invasion from Conjunctival Squamous Cell Carcinoma

Author: Bashar Bata (eposter presentation)

Purpose:
To evaluate the safety and efficacy of stereotactic radiosurgery as an alternative to exenteration surgery in patients with orbital invasion by squamous cell carcinoma (SCC) of the conjunctiva.

Methods:
Patients who had stereotactic radiosurgery for biopsy-proven conjunctival SCC invading the orbit but sparing the bone with a minimum of 1 year follow up were included. Treatment failure was defined as no decrease in tumour size 3 months after treatment. Patients were followed up 3-monthly for 2 years and 6-monthly afterwards with a minimum of yearly MRI scan of orbit.

Results:
Five patients met the inclusion criteria. The median age at presentation was 67 years. In all patients the SCC involved the bulbar and the fornical conjunctiva. In two patients the caruncle was involved. An MRI confirmed extension of the SCC into the orbit and involvement of at least one rectus muscle. Stereotactic radiosurgery was done in a single session during which each patient received a marginal dose of 20 Gy. The mean follow-up was 30.2 months. Four patients responded to the treatment and had no evidence of recurrence by their last available follow-up visit. The patient whose tumour did not respond had the most aggressive disease as the tumour had indistinct margins on MRI orbits. He needed exenteration surgery with radical neck dissection three months later but eventually passed away from brain invasion.

Conclusion:
Stereotactic radiosurgery should be considered as an alternative to exenteration surgery in the treatment of conjunctival SCC invading the orbit. It carries less morbidity and allows patients to maintain their vision. However, it is less likely to be successful when the SCC involves an extensive orbital area.

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[Link to PDF ePoster]
Endoscopic orbital decompression in thyroid eye disease and other orbital conditions

Author: Valerie Juniat (eposter presentation)

Purpose:
We report the outcomes of endonasal orbital decompression performed by oculoplastic surgeons experienced in endonasal techniques.

Methods:
Retrospective case series of endoscopic orbital decompression across two hospital sites (Brighton [UK], Adelaide [Australia]) between January 2011 and July 2018 for 3 groups:
1) dysthyroid optic neuropathy
2) proptosis secondary to thyroid eye disease
3) proptosis secondary to other orbital conditions
Information collected include patient demographics, surgical details, pre- and post-operative clinical findings (visual acuity [VA], exophthalmometry readings, ocular motility, diplopia), and complications.

Results:
There were 87 cases of endoscopic decompression (Group 1–10, Group 2–70, Group 3–7). Group 3 conditions included 1 each of optic nerve sheath meningioma, sphenoid wing meningioma, idiopathic myositis, myopic large globe, osteo-odontokeratoprosthesis lamina protrusion, Crouzon syndrome, and third nerve palsy. Most patients had endoscopic medial and posterior medial wall/floor decompression [38/70 (54%)].

VA improved in 3/10 and stabilized in 7/10 of Group 1. VA remained stable in 69/70 in Group 2 and 7/7 in Group 3. There was an average reduction in proptosis of 2.0 ± 1.6mm (standard deviation – SD) in Group 1, 4.6 ± 2.1mm (SD) in Group 2, and 3.5 ± 1.4mm (SD) in Group 3. Motility improved in 7/10 and remained stable in 3/10 in Group 1, improved in 8/70 and worsened in 2/70 in Group 2, and remained stable in 7/7 in Group 3. There were no new cases of post-operative diplopia. There were no significant complications.

Conclusion:
Oculoplastic surgeons experienced in endonasal techniques can perform endoscopic orbital decompression with outcomes comparable to the literature.

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[Link to PDF ePoster]
Abstract Number: 328

Does intra-mucosal triamcinolone improve success in DCR? The Leicester experience.

Author: Evangelos Lokovitis (eposter presentation)

Purpose:
To present the anatomical and functional success rate of dacryocystorhinostomy (DCR) procedures done at a tertiary referral center in the UK between 2013 and 2017. Moreover, evaluate the use of intraoperative triamcinolone to improve the success rate.

Methods:
The medical records of 293 patients who underwent external or endonasal DCR from January 2013 until January 2017 were retrospectively reviewed. Surgical and functional success rates were evaluated. Triamcinolone injection was used as adjunctive in selected cases where a high risk of failure was anticipated. Correlation between intraoperative triamcinolone use and success rate was evaluated. Possible adverse effects of triamcinolone were documented and indications for usage of triamcinolone were investigated.

Results:
314 cases from a total of 363 DCR’s were included in our study. Mean age was 62 years and mean duration of symptoms was 21 months. The mean follow up period was 10.53 months. Anatomical success rate was 93.9% although the functional success rate was 82.5%. Intraoperative triamcinolone was injected in nasal and lacrimal flaps in 51 patients. No adverse effects from the use of triamcinolone were noted to our cohort of patients. Regarding the patients that underwent surgery for NLDO or functional epiphora no statistical significance was found between use of triamcinolone and success rate however for the revisional endonasal operations the functional success rate was 50% with no use of triamcinolone increasing to 100% when triamcinolone was used.

Conclusion:
Success rate of DCR in our study was comparable with national standards. Use of triamcinolone injection revealed a trend towards increase of success rates in redo endonasal DCR’s.

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Abstract Number: 329

Additional deep margin tissue excision on time saves nine

Author: Suresh Sagili (eposter presentation)

Purpose:
To assess the advantage of performing an additional deep margin tissue excision, during one stage excision and primary closure of periocular basal cell carcinoma (BCC).

Methods:
Retrospective case note review of patients who underwent one stage, excision and primary closure for periocular BCC, between 2014 and 2019.
All tissue specimens were sent for paraffin section histological examination.

Results:
A total of 340 patients underwent excision of periocular BCC, during the study period.
Twenty one cases were reported to show deep histological margin clearance of less than 0.5mm.
Nine of these patients had an additional deep tissue specimen excised during primary excision.
Twelve patients did not have an additional deep tissue excised during primary surgery and out of these 5 patients underwent a further excision of deep margin tissue.
No residual BCC was identified in any of the cases that underwent further deep margin tissue excision.
Seven patients did not undergo any further excision and were kept under observation.
Mean follow up duration was 2.6 years (range 1to 5 years). There were no recurrences noted during the follow up period.
Histological subtypes were nodular BCC in 19 cases and morphoeic in 2 cases.

Conclusion:
Narrow histological safety margin of < 0.5mm, leads to the dilemma of whether patient should be closely observed for signs of recurrence or a further excision of the deep margin should be performed.
Hence, performing an additional deep margin tissue excision during primary excision, can avoid the need for further surgery and the need for a long term follow up.

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Abstract Number: 330

**Post-radiation orbital fibrosis: A newly described cause of frozen orbit.**

**Author:** Gregory Fincham (*eposter presentation*)

**Purpose:**
To describe a case of unilateral orbital and paranasal sinus sclerosing fibrosis in a patient 14 years after high-dose radiotherapy for maxillary sarcoma.

**Methods:**
In the past decade, a syndrome of radiation induced fibrosis has been increasingly recognised as a rare long-term side effect of radiotherapy. We present an orbital case and compare clinical, histological and radiological features with existing literature on post-radiation fibrosis (PRF) in other anatomic sites.

**Results:**
A 47-year old man presented with diplopia, left ptosis and proptosis two weeks after DCR surgery outside our unit. He initially attributed symptoms to minor facial trauma. MRI showed a mass in the medial and inferior orbit. He underwent radical radiotherapy for left maxillary sarcoma 14 years before, so our initial differential was recurrent sarcoma or secondary lymphoma. However, biopsy revealed dense fibrotic tissue consistent with cases of delayed onset post-radiation fibrosis of lung and spine previously reported following high-dose radiation for lung and breast carcinoma. In this orbital case, PRF did not resolve spontaneously or with oral steroid therapy; extensive debulking of the mass reduced the strabismic angle but ophthalmoplegia persisted.

**Conclusion:**
To our knowledge, there have been no previous reports of PRF of the orbit. This case illustrates a progressive chronic inflammatory response resulting in sclerosing fibrosis of orbital soft tissue and paranasal sinuses in a patient who had undergone previous high-dose radiotherapy. The response to oral steroids was poor with persistent frozen orbit, and literature suggests a trial of early intra-venous supra-physiological steroid therapy may be warranted in this rare and debilitating condition.

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The quality of online information regarding non-surgical aesthetic procedures available to the public

Author: Mohsan Malik (eposter presentation)

Purpose:
To assess, quantitatively, the quality of online information available to the public regarding non-surgical aesthetic procedures using common search engine terms to inform best practice.

Methods:
Advanced search functions on Google and Bing, search engines that represent 95.27% of global searches were queried with the following expanded search terms: “facial filler” and “botox”. The information contained in the top 25 results was then assessed using validated DISCERN instrument and JAMA benchmark criteria to quantify the overall reliability and quality of the information.

Results:
Average DISCERN score was 39.2 for the 77 unique websites assessed. For Jama benchmark criteria, 33.8% of websites displayed appropriate authorship. Attribution of references and sources was seen in 24.7%. The disclosure was only stated in 16.9% of websites. Dating of content and updates were seen in 46.8% of results. Few websites discussed complications associated with each procedure.

Conclusion:
Overall, we discovered online information surrounding botox and facial fillers to be of low to moderate quality. Our data highlights the dearth of high quality, reliable information available to patients and the potential effects this may have on patients’ expectations, the perception of treatment outcomes and perceived risks.

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Trans-canalicular trephination with silicone intubation for medial common canalicular block after dacryocystorhinostomy

Author: Kaveh Vahdani (eposter presentation)

Purpose:
To assess the feasibility and outcome for trans-canalicular trephination and silicone intubation for late medial common canalicular obstruction after uncomplicated open lacrimal surgery.

Methods:
A retrospective case-note review for patients in whom membranous obstruction of the common canaliculus had occurred after prior open lacrimal surgery, and who had undergone nasal endoscopy with trans-canalicular trephination and silicone intubation. The surgery was performed under general or local anaesthesia, the tubes removed after about 4 months and success judged by the subjective relief of “flow” symptoms (epiphora) and the free passage of tear-film fluorescein into the nasal space.

Results:
Seventy-one patients (51 female; 72%) had attempted trans-canalicular trephination and intubation in 85 systems, the procedure being completed in 81/85 (95%) cases. Trephination could not be completed in 4 patients. Of those, 3 were cured with later open revisional surgery and one became asymptomatic after attempted trephination. Although a patent anastomosis was established in 59/81(73%) systems at a mean follow-up of 59 months (median 19; range 1-266 months), symptomatic relief was achieved in 47/81 (58%). Twenty-six systems with continued symptoms underwent successful secondary procedures – 5 patients underwent repeat trephination and intubation, 1 had 4 months of re-stenting with a silicone tube, 10 had repeated open lacrimal surgery and 10 had closed placement of a Lester Jones canalicular bypass tube.

Conclusion:
Endoscopically-guided trans-canalicular trephination and silicone intubation is an efficient method for revision of failed lacrimal surgery where a thin membranous common canalicular obstruction forms at the Valve of Rosenmuller. Where completed, the technique provides a symptomatic cure in a majority of cases and may, if necessary, be repeated.

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Link to PDF ePoster
Abstract Number:333

Acute spontaneous rupture of the superior ophthalmic vein

Author: Kaveh Vahdani (eposter presentation)

Purpose:
To describe a series of patients presenting with sudden onset of localised, non-traumatic haemorrhage from spontaneous rupture of superior ophthalmic vein (SOV).

Methods:
A retrospective review of six patients with a diagnosis of acute spontaneous rupture of SOV. The pattern of presentation, clinical implications and outcomes, as well as the characteristic imaging and histological features are described.

Results:
Six patients (5 men; 84%) presented at a mean age of 45 years, with the commonest symptoms and signs being acute onset of Valsalva-negative proptosis (mean 3.3mm; range 0-7mm), orbital pain and diplopia. Two patients developed optic neuropathy. Imaging revealed a well-defined, ovoid, homogenous soft-tissue mass above (2 cases) or superomedially to the SOV; The masses were typically echogenic on B-mode ultrasonography, and there was no detectable internal blood-flow. Resolution of signs and symptoms was noted in 5 patients over an average of 4.6 months (range 3-7 months), whilst one patient – the youngest — required excision of a persistent and increasing mass.

Conclusion:
Spontaneous blowout of the SOV is a rare cause of acute non-traumatic orbital haemorrhage. In most cases the clinical signs slowly improve over several months, surgical intervention is generally not required, and recurrence is infrequent.

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Moving from External to Endonasal Dacryocystorhinostomy (DCR) in the paediatric population: Our Experience

Author: Ian De Silva (eposter presentation)

Purpose:

To review the outcomes of dacryocystorhinostomy (DCR) in the paediatric population and the impact of changing practice from predominantly external DCR to endoscopic DCR in majority of this cohort.

Methods:

A retrospective review of 27 cases of DCR in 17 paediatric patients at a single centre under the care of a single consultant oculoplastic surgeon. Success was defined as resolution of symptoms or a patent nasolacrimal system. The cases for endonasal DCR were jointly assessed and selected by the oculoplastic surgeon and rhinologist.

Results:

From a total of 27 procedures, 7 were external DCR (26%) and 20 were endonasal (74%). Almost half of all patients had asthma, eczema, or atopic eye disease in each group. The mean age was 9.65 (range 2 to 17) with a similar distribution in both groups. 7 of the cases were redo DCR’s, of which 6 were endonasal and 1 was external approach. The overall success rate was 20 out of 27. 4 out of 7 for external DCR and 16 out of 20 (80%) for endonasal DCR. Though the endoscopic DCR’s achieved a superior success rate the difference was not statistically significant. (p = 0.235) Of the redo cases, 5 out of the 7 were successful. The final cumulative success rate was 89% (24/27).

For primary DCRs, the rate of success was 86% for the endonasal approach but this was not statistically significant to the results of the external approach. (p = 0.091)

Conclusion:

Our results confirmed that primary endonasal DCR has at least an equivalent success rate to external DCR. It can be performed in most paediatric patients above the age of two as a primary treatment and is better tolerated by children due to no requirement for postoperative suture management and no scar.

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Abstract Number: 335

Bilateral orbital-cranio NF type I: two rare cases presentation

Author: ANNA GKOUNTELIA (eposter presentation)

Purpose:
To present the clinical and imaging findings of two rare cases of bilateral orbital-cranio NF type I.

Methods:
A retrospective study of clinical and imaging findings of two NF type I patients with bilateral orbital-cranio involvement.

Results:
A 33 yo man with extensive soft tissue infiltration involving the face and anterior-superior scalp and neck, ovoid mass posterior to the spinous process of C2, infiltration of the para pharyngeal spaces partially compressing the oropharynx, Bilateral orbital involvement with small calcified globe on the left side and sphenoid wing dysplasia, asymmetry of the skull vault with relative thinning on the left hemisphere.
A 15 yo female with generalized NF Type 1, severe bilateral plexiform neurofibromatous changes involving orbits, forehead and periorbital regions more marked on the right. Right sided extension in pterygopalatine fossa, infraorbital canal and foramen ovale. Plexiform neurofibroma left hemi-tongue, right sphenoid wing dysplasia, multiple foci of abnormal signal intensity involving right cerebellar hemisphere, brain stem globus palladi and thalami. Long term swallowing problems with high arched palate, small stature, longstanding cervicothoracic scoliosis.

Conclusion:
Unilateral sphenoid wing dysplasia is one of the features of NF-1, but severe bilateral plexiform neurofibromatous changes involving orbits, forehead and periorbital regions are very rare.
Surgery remains the standard of care for these patients. Controversies remain about the timing of the first operation and today most multidisciplinary teams involving plastic, maxillofacial, ophthalmologic, and neurosurgeons favour early intervention to try to minimize the secondary deformation of the orbital and facial skeleton.

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In Defence of Vismodegib: A Multicentre Case Series

Author: Huw Oliphant (eposter presentation)

Purpose:

Vismodegib is a first-in-class Hh (Hedgehog) pathway inhibitor, previously available for the treatment of basal cell carcinoma (BCC). It has recently been withdrawn by the National Institute for Health and Care Excellent (NICE) due to apparent lack of benefit, and questions over cost-effectiveness. The purpose of this study is to present a multicentre case series of patients treated for advanced periocular BCC using Vismodegib.

Methods:

Six patients were included in this multicentre case series (Brighton, Cardiff, Newcastle). Basic demographic data was obtained using a standard data collection sheet, alongside BCC characteristics, nature of orbital involvement (if any), response to treatment, side effects, and adjuvant treatment.

Results:

Average age was 75 (61-90). Four tumours were deep ulcerating lesions at the medial or lateral acanthi, and 2 were irregularly defined tumours. Three patients (50%) demonstrated orbital involvement. Three patients represented recurrent disease (50%). One patient had full regression of the BCC, and 4 had a partial response (1 patient had a lack of data to determine response). Five out of six patients experienced side effects, though most frequently fatigue was encountered. Two patients underwent subsequent resection and one patient radiotherapy. Mean Follow up period was 27 months (11-78 months).

Conclusion:

Whilst Vismodegib has been withdrawn from use in the National Health Service, there remains a strong case for its use in selected scenarios. In particular, it is likely to have utility in advanced BCC with orbital invasion, where globe sparing surgery is sought.

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‘Opening our Eyes’ to an Oculoplastic EPR

Author: Priya Bhatt (eposter presentation)

Purpose:

An Electronic Patient Record (EPR) comprises a series of software applications which bring together key clinical and administrative data in one place. There are obvious advantages of an Ophthalmic versus a Generic EPR. OpenEyes is a fast, web-based, eye care specific EPR already in use in other specialties. The new developments for the Oculoplastic module are presented.

Methods:

An introduction to the OpenEyes EPR and the advantages of Oculoplastic versus Generic EPR are presented. Fast input, structured data, graphical notation, photo-capture and ease of audit are demonstrated.

Results:

Currently in Oculoplastics, there is no satisfactory, universally used system to collect patient data, audit data and benchmark our performance against our peers with respect to outcome data. OpenEyes Oculoplastic Module is one option that can offer these advantages and presents a current and valuable opportunity for further optimal development.

Conclusion:

Over the next decade or so, most departments will see a move towards an EPR. A specialty specific Oculoplastic Module within the OpenEyes EPR allows us to be ahead of the curve. Working as a community we can improve our patient data access and collection with the potential to audit our outcomes and benchmark our performance nationally.

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Proposing audit standards for the multidisciplinary management of Graves’ Orbitopathy (GO).

Author: Soma Farag (eposter presentation)

Purpose:
Currently there are no established national audit standards for the management of Graves’ orbitopathy (GO) in the UK. Early diagnosis and treatment of GO is essential to prevent sight-threatening complications and long-term disability and therefore establishing a standard of care is highly desirable. Eight audit standards were proposed, deriving from existing guidelines by EUGOGO and TEAMeD 5.

Methods:
A retrospective analysis of 136 patients referred to 2 GO multidisciplinary (MDT) clinics between 2016-2019. Audit standards were determined as follows; i) time between referral and specialist review ii) offering of smoking cessation and selenium supplementation where appropriate iii) time to initiation of intravenous methylprednisolone (IVMP) in selected patients iv) time to orbital radiotherapy and orbital decompression following a clinical decision.

Results:
Mean patient age was 49.2 yrs, 73.1% female, 52.9% white caucasian. Mean initial clinical activity score (CAS) was 2.4 (range 0-7). Of the 136 patients, 51 received IVMP for active moderate-severe GO and the mean time to treatment was 5.2 days. All patients with sight-threatening GO were seen and treated within 2 weeks. There were 23/136 (16.9%) current smokers, all of whom received documented smoking cessation advice. Selenium supplementation was recommended to 75.4% of the patient cohort.

Conclusion:
The increasing recognition that an MDT approach is optimal for the management of GO requires a strong clinical governance framework. Here we have proposed a set of clinically relevant quality standards derived from two high volume GO MDT clinics. These standards inform the debate defining high quality care and resource allocation for GO in the UK.

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Staged surgery for high risk periocular skin malignancies

Author: Holly Clarke (eposter presentation)

Purpose:
To summarise the management and outcomes of surgical treatment of non-BCC periocular skin cancers treated in a District General Hospital.

Methods:
Retrospective review of all surgically treated non-BCC tumours between 2012 and 2017 by a single oculoplastic consultant.

Results:
52 cases of non-BCC tumours were identified from histology. Mean age was 75 (range 48-95), with 27 males and 25 females. The majority of cases were squamous cell carcinoma (SCC) (36), followed by sebaceous cell carcinoma (6), lentigo maligna (4), lentigo maligna melanoma (2), malignant melanoma (2), and Kaposi sarcoma (2). 22 patients (42%) had a history of skin cancer elsewhere. Complete histological clearance was achieved with staged surgery prior to reconstruction in 49 cases. Of the remaining 3 patients, 1 was unfit for further surgery, and 2 had advanced disease at presentation and subsequently died (1 from SCC, 1 from malignant melanoma). Despite surgical excision margins of 5mm for SCC and 10mm for lentigo maligna and malignant melanoma, histological clearance required an average of 1.7 excisions (range 1-4). 3 patients (1 SCC and 2 sebaceous carcinoma) required exenteration with locally invasive tumours at presentation. So far only one local recurrence has been observed in a patient who died shortly afterwards from other causes.

Conclusion:
Staged surgery is mandatory for non-BCC periocular tumours with histological clearance prior to reconstruction. Frozen sections are of insufficient quality for accurate histology in such cases. Lentigo maligna melanoma presents a significant challenge as multiple excisions are usually required and reconstruction may be delayed. With wide excision margins, a high cure rate may be achieved for these tumours.

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4 Year Follow-up Data on All Periocular BCCs Excised with a 2mm Margin Over 1 Year

Author: Anu Karthikeyan (eposter presentation)

Purpose:
Small (2mm) excision margins for nodular BCCs have been proven to provide adequate clearance in previous studies. We aim to evaluate the outcome of these small excision margins for the different subtypes of BCC treated with staged excision and reconstruction in Aintree.

Methods:
All BCCs excised over a 1 year period (Jan 1st to Dec 31st 2014) with a 2mm margin were retrospectively audited for location of lesion, histological subtypes, margin clearance and evidence of recurrence. Exclusions were lesions which were excised with greater margins, or non-BCC histology.

Results:
85 periocular BCCs were excised with 2mm margins during the study period, 4 of which were recurrent from previous excisions. Proportionally, 67 (79%) were nodular and 18 (21%) were a more aggressive subtype. Margins were clear in 55 (65%), clear but close (<1mm) in 18 (21%), and involved in 12 (14%). Of the involved/clear but close cases, 6 (20%) were of non-nodular subtype. Clear but close and involved margins underwent further excision at involved margins before reconstruction. Patients were followed up for a mean of 3.7 years, with no recurrence observed.

Conclusion:
Previous studies have shown 2mm margins can be used safely in nodular BCCs. Our study shows that 2mm margins may be used safely even in more aggressive histological subtypes.

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A Great Weight On Your Lids: The Role of External Eyelid Weights in Managing Corneal Exposure

Author: Imran Haq (eposter presentation)

Purpose:
Incomplete eyelid closure, or lagophthalmos, as well as the loss of blink caused by an interruption to the nerve supply to orbicularis oculi, can lead to exposure keratopathy. This can have devastating consequences as a result of corneal breakdown, ulcers, and even perforation.

Methods:
External eyelid weights are a temporary solution that work to reduce exposure by restoring some element of eyelid function. It is attached to the upper eyelid with adhesive. This can avoid more long lasting or invasive procedures such as botulinum toxin, tarsorrhaphy and/or implantation of gold weights into the upper eyelid – especially in patients who are poor surgical candidates, or those who refuse surgery.

Despite being simple to administer and use, relatively cheap, and easily available, to date the use of external eyelid weights has been very limited.

Results:
In this series of seven patients we will highlight the varied applications and effectiveness of external eye lid weights, especially in patients with ‘locked-in syndrome’, Parinaud’s dorsal midbrain syndrome and Bell’s Palsy – some of whom have been extremely proactive and motivated, managing the need to avoid surgery altogether.

Conclusion:
External eyelid weights should play an essential role in the management of patients with ocular exposure, not only as a trial before surgical implantation of lid weights, but also as a longer-term treatment for ocular exposure.

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Surgical outcomes of the multidisciplinary management of sphenoid wing meningioma in a tertiary centre: the Cardiff experience

Author: Dana Ahnood (eposter presentation)

Purpose:
Sphenoid wing meningioma (SWM) is a rare condition that may present with optic nerve dysfunction and disfiguring proptosis. This is managed surgically in many centres without the input of an orbital surgeon. The aim of this study is to report the outcomes of a multidisciplinary surgical approach in the treatment of SWM involving the orbit, managed jointly by neurosurgeons, maxillofacial surgeons, and ophthalmologists.

Methods:
A database of SWM presenting between 2009 to 2019 was obtained consisting of a total of 19 patients. Of these 5 were treated conservatively and 14 were treated surgically. 8 of the surgical patients were operated on by a multidisciplinary approach. Notes were analysed for pre and post-operative optic nerve function, proptosis measurements and complications.

Results:
Pre-operatively, the visual acuity (VA) was 6/12 or worse in 50% of patients. Post-operatively only 2 patients dropped their VA by more than 2 Snellen lines (one patient dropped from 6/120 to NPL and other from 6/6 to 6/60). All other patients either improved or maintained their VA. The mean reduction in proptosis was 4mm post-operatively (range 2-9mm). Complications included third nerve palsy in 1 patient, and residual trigeminal neuropathy in 2 patients.

Conclusion:
Multi-disciplinary surgical management of SWM allows the combined skill set of allied specialties to be utilised to optimally treat this challenging condition. Our visual outcomes are comparable with other published series.

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Lacrimal gland adenoid cystic carcinoma masquerading as orbital cellulitis

Author: Ankita Punit (eposter presentation)

Purpose:
We report a case of a lacrimal gland adenoid cystic carcinoma (ACC) masquerading as a preseptal/orbital cellulitis, leading to delayed diagnosis.

Methods:
A retrospective case report with radiological and histopathological correlation.

Results:
A 48 year old man attended the eye casualty on four separate occasions, over five months, with varying presentations that always included right upper lid swelling, and at each of these presentations a different diagnosis was made: (in chronological order) “lid swelling secondary to viral infection”; severe blepharitis; preseptal cellulitis; and orbital cellulitis.

While the patient was felt to have responded at least partially to intravenous antibiotics, computed tomography, and subsequent magnetic resonance imaging, of the orbits identified a mass in the superotemporal extra-conal space of the right orbit. Incisional orbital biopsy was performed, confirming that this mass was an ACC of the lacrimal gland, with prominent cribriform areas and evidence of vascular invasion. Excisional biopsy of the tumour was performed (American Joint Committee on Cancer [AJCC] category = T2aN0M0), followed by orbital radiotherapy (65 Gy in 30 fractions).

Conclusion:
Lacrimal gland ACC may masquerade as a preseptal or orbital cellulitis. Given the high metastatic potential and poor prognosis of these tumours, early diagnosis is essential. While imaging is commonplace in cases of suspected orbital cellulitis, a low threshold for imaging is advisable in recurrent cases of suspected preseptal cellulitis.

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Does removal of the orbital rim make a difference in postop pain after lateral wall orbital decompression? A bicentre case series

Author: TERESA MARIA LUPION DURAN (eposter presentation)

Purpose:
To compare the management of postoperative pain after elective lateral wall orbital decompression (OD) with or without removal of the orbital rim in inactive thyroid eye disease (TED) patients

Methods:
Retrospective case series included 14 TED patients (35.71% women [n = 5] and 64.29% men [n = 9]) who underwent elective lateral wall decompression recruited from James Cook Hospital (Middlesbrough) and Royal Victoria Infirmary Hospital (Newcastle). 7 patients had the orbital rim removed and sutured back and 7 had the orbital rim preserved during the procedure. Patients were asked about the medication taken at the first postop day. Standard treatment with paracetamol 1 gr QDS and ibuprofen 400 mg TDS was prescribed postoperatively and need for additional codeine 60 mg QDS was recorded

Results:
Only 1 patient who had the orbital rim removed (7.14%) complained of significant pain and required additional medication than the standard the following day to the operation. Patients who had their orbital rim spared did not need supplementary codeine or morphine. 3 patients with spared orbital rim (21.43%) and 3 who had it removed (21.43%) did not require ibuprofen and felt comfortable with the single use of paracetamol

Conclusion:
According to our results, removal of the orbital rim is not a determining factor in predicting the degree of post operative pain after lateral wall OD. In addition, it increases the operative field and eases the room to manoeuvre in a narrow working space with a minor increase in the operative time. Consequently, orbital rim displacement can be considered comparable to lateral wall decompression with orbital rim preservation in terms of postoperative discomfort

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The incidence and morbidity of orbital incidentalomas

Author: James Laybourne (eposter presentation)

Purpose:
To calculate the contemporary incidence and morbidity associated with unexpected asymptomatic orbital lesions found on craniofacial imaging.

Methods:
A retrospective analysis was performed of all patients discussed at North West Orbital Multidisciplinary Team (MDT) Meetings at Manchester Royal Eye Hospital from April 2015 to March 2019. Patients without symptoms of orbital disease but reported to have orbital lesions on MRI or CT craniofacial imaging were included.

Results:
265 cases were reviewed over the 4-year study period covering a geographical population of approximately 5.5million. 14 cases of orbital incidentaloma were found i.e. 5% of cases discussed at the NW Orbital MDT. The incidence of orbital incidentaloma was therefore 0.6 cases per 1 million population per year. Mean age was 63 years (range 38 to 90 years). The original scan indications included TIA, progressive visual field loss, acute confusion, falls, hearing loss, headache, tinnitus and recent cardiopulmonary resuscitation. Radiological orbital diagnoses matched with clinical findings included vascular lesion (8), pleomorphic adenoma (2), optic nerve sheath meningioma (1), dermoid cyst (1), malignant melanoma metastasis (1) and radiological misdiagnosis (1). All cases were unilateral. Two patients required lesion excision via lateral orbitotomy, one required orbital biopsy and one died shortly after imaging due to widespread malignant melanoma metastases. All other patients received clinical monitoring with or without further imaging.

Conclusion:
Asymptomatic incidental orbital lesions are a rare phenomenon but can trigger diagnostic and clinical management conundrums. Orbital MDT Meetings provide a safe and effective means of managing such uncertainty.

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Lower eyelid entropion following cataract surgery: a pilot study

Author: Christopher Schulz (eposter presentation)

Purpose:
Several studies have postulated that trauma to the levator complex through speculum use may contribute to an increased risk of ptosis after cataract surgery. Similarly, it is plausible that speculum use in cataract surgery may damage the inferior eyelid retractor, resulting in an increased risk of involutional entropion. This hypothesis is previously untested.

Methods:
Data was extracted on all patients who had undergone cataract surgery at a single centre during a 10-year period. From this dataset, patients in whom both eyes were now pseudophakic were excluded. This created a study cohort with one eye ‘exposed’ to cataract surgery and their fellow eye serving as a ‘control’. Patients with any prior lower eyelid surgery or with a non-involutional cause of entropion were excluded. The relative risk of entropion surgery following cataract surgery was calculated between the ‘exposed’ and the ‘control’ eye.

Results:
We identified 27 patients who underwent cataract surgery in only one eye and subsequently had surgery for involutional entropion in either eye. Of these, 21 (78%) were in the ‘exposed’ group and 6 (22%) were in the ‘control’ group. The risk of onset of involutional entropion and subsequent surgical correction was 0.19% in the ‘exposed’ and 0.05% in the ‘control’ groups respectively. The relative risk was 3.5x higher in the ‘exposed’ group (p=0.007; 95% CI 1.4 – 8.7). Median time between procedures was 26 months (range 3-122). Owing to the nature of the study design, the incidence is likely underestimated, but the relative risk remains resistant to this limitation.

Conclusion:
This study shows a trend towards an increased risk of surgery for involutional entropion following cataract surgery. These findings warrant further study.

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[Link to PDF ePoster]
Is quantitative analysis of optic nerve diameter and sheath ratio reliable in assessing optic nerve dysfunction?

Author: Sonali Nagendran (eposter presentation)

Purpose:

MRI Orbits are frequently requested to assess optic nerve dysfunction in the context of orbital pathology. Radiologists currently use subjective assessments of optic nerve sheath diameter (ONSD) and optic nerve diameter (OND) to diagnose optic atrophy (OA). Do objective measurements and asymmetry of the ONSD/OND ratio correlate with clinical signs of OA?

Methods:

A retrospective study of MRI Orbits scans performed over 5 years in a tertiary centre. Data was collected from the Trust imaging system (PACS) and electronic medical records. ONSD and OND was measured by an ophthalmologist and neuroradiologist from coronal STIR or T2W scans.

Results:

ONSD and OND could be clearly measured in 100 of 129 scans reviewed. The most reliable point to measure was 3-5mm behind the globe. Asymmetry in the ONSD/OND ratio was noted in 31.6% (18/57) of patients with no clinical signs of OA but 62.8% (26/43) of patients with clinical signs of OA (p=0.08). However, there was statistically significant ONSD/OND asymmetry in patients with unilateral signs of clinical OA, with or without reported radiological signs of OA (p=0.04). Eyes with clinical signs of OA had a statistically significant increase in the ONSD/OND ratio compared to eyes with no signs of OA (p=0.009).

Conclusion:

Objective measurements of the ONSD/OND ratio correlate with clinical signs of OA but are only reliable 3-5mm behind the globe. ONSD/OND asymmetry is present in normal subjects but it is more frequent in eyes with optic nerve dysfunction, particularly in unilateral disease.

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Rehabilitation of anophthalmic patients - results of a survey

Author: Christina Miller (eposter presentation)

Purpose:
The aim of this investigation is to evaluate ocularists’ views on orbital implants, secondary surgical procedures, patient satisfaction and cooperation between ophthalmologists and ocularists. A similar survey was performed 20 years ago by the senior author. Further we want to see whether there have been any changes in the management of anophthalmic patients in a large tertiary referral centre in Germany.

Methods:
A 18-item questionnaire was sent to 23 centres in Germany including more than 40 ocularists. For analysis of possible existing changes of treatment and treatment-related problems the results have been compared with those 20 years ago.

Results:
From the ocularists’ view, primary implants are generally preferred – distribution and exact numbers will be presented. Outcome in regards of fitting depends strongly upon surgical procedure and postoperative course. Almost all patients have been fitted glass prostheses. Only a small number of patients require secondary surgical procedures, which then results in a more favourable success rate of about 80%. Most of the ocularists consider the relationship between ocularists and ophthalmologists as satisfying worthy of improvement.

Conclusion:
Our results demonstrate that there is a high demand for fitting ocular prostheses. The majority of our patients benefited from an improved prosthetic fitting of ocularists. In comparison to our results 20 years ago, cooperation between ocularists and ophthalmologists has improved. The use of primary DFG has increased and has become one of the favorably implants; German ocularists favor dermal fat grafts. Other trends of this survey performed 20 years ago were confirmed, including further need for improving cooperation between ocularists and ophthalmologists.

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Feasibility study to investigate the perforated punctal plug as an alternative to three snip punctoplasty for the treatment of acquired punctal stenosis (POPPY) – A progress report

Author: Mohammad Dehabadi (eposter presentation)

Purpose:
To determine if perforated punctal plugs (PPPs) are an acceptable alternative to 3-snip punctoplasty (3SP) in the treatment of acquired punctal stenosis (APS).

Methods:
Randomised study recruiting 60 patients with APS at the Western Eye Hospital, London.

Patients are assessed by a masked investigator using the Watery Eye Qualify of Life Questionnaire (WEQOL), slit lamp examination, lacrimal syringing, and OCT measurement of puncta. Eligible patients are randomised to receive a 3SP or PPP, with PPP removal at 2 months.

Patients are reviewed at 6 months post 3SP or PPP removal using the same criteria as baseline. Final review at 12 months is by telephone to complete the WEQOL.

Primary outcome measure:
– Estimated number of times eye has watered in the past week
Secondary outcome measures:
– Effect of watering on quality of life
– Punctum size
– Tear meniscus
– OCT measurements

Results:
36 patients have been recruited to date, with 6-month data on 14 patients, and 12-month data on 11 patients. 1 patient withdrew due to failure, 1 lost to follow-up at 6 months, and 2 lost to follow up at 12 months.

The mean age of patients is 62 years (range 27-85) and 78% are female. At baseline, patients are dabbing their eyes on average 96 times in the preceding week (95% CI 73-115), with the mode punctum size being Kashkouli grade 2, and mode tear meniscus height of 0.3mm (range 0.5mm) in the symptomatic eye.

Conclusion:
We present an update on recruitment and the baseline characteristics of this clinical trial. We report no adverse events thus far and hope to conclude recruitment within 12 months.

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Clinical and patient reported outcomes of frontalis sling suspension for congenital ptosis using synthetic versus autologous materials

Author: Khushnuda Zulkurova (eposter presentation)

Purpose:
Frontalis sling suspension is the treatment of choice for congenital ptosis associated with poor levator function. We performed a retrospective case series analysis of the clinical and patient reported outcomes using synthetic, autologous and cadaveric materials.

Methods:
We retrospectively analysed a consecutive case series of patients who underwent frontalis sling procedures for congenital ptosis between October 2010 and April 2018 at our hospital.

Results:
We analysed outcomes of 27 procedures from 16 patients. Median age at first surgery was 9.2 years (range: 1.8-70.5; IQR: 14.8). Median follow-up prior to discharge was 23.5 months (range: 3.0-55.2; IQR: 30.1). Materials included Ethilon (n=20), autologous fascia lata (n=1), cadaveric fascia lata (n=2), autologous palmaris longus/flexor carpi ulnaris tendon (n=4). Cosmetic correction and positive patient reported outcomes were achieved in all patients at 12 months after initial surgery. 5 cases of slippage occurred in Ethilon cases following trauma, each requiring redo, one of which slipped again following trauma. These occurred 14-44 months following initial surgery. Other complications were lagophthalmos (n=4) and lash ptosis (n=1). No granuloma formation or chronic inflammation were seen.

Conclusion:
Ethilon for frontalis sling suspension is a safe and effective option for the correction of ptosis, though further surgery is required when there is slippage. Similar clinical outcomes were achieved with Ethilon as those published using silicone rod, but without granuloma or chronic inflammation. No slippage was seen in autologous or cadaveric materials, which may represent an effective alternative to synthetic materials.

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Abstract Number: 351

The use of Dacryocystography in the management and treatment of Congenital Lacrimal fistula

Author: Bansri Lakhani (eposter presentation)

Purpose:
Congenital lacrimal fistulae are accessory ducts between the lacrimal drainage system and the skin, often referred to as accessory puncti. The nasolacrimal apparatus along with any abnormalities can be assessed using Dacryocystography (DSDCG).

Methods:
A single centre retrospective, observational case series of 6 eyes (5 patients) with congenital lacrimal fistula.

Results:
Out of the 6 Lacrimal fistulas: 1 was bilateral, 3 were right sided and 1 was left sided. There were 3 male and 2 female patients, the median age of presentation was 2 years ranging from 6 months to 9 years.
All 6-fistula presented with epiphora and discharge. All patients had no or very limited Fluorescein dye passage through the lacrimal system. (Fluorescein dye test: FDDT). There were no documented episodes of dacryocystitis.
DSDCG investigation was carried out for all patients. 4 lacrimal systems were patent with no obstruction, 2 had distal obstructions with no flow beyond the valve of Hasner.
5 out of 6 accessory puncta originated from the canaliculus: 2 from the superior canaliculus and 3 from the inferior canaliculus. 1 patient had a lacrimal sac fistula.
All 6 fistulas underwent fistulectomy surgery, 5 with self-retaining monocalicular silicone tubing and one with MiniMonoka tube. DSDCG was carried out intra-operatively and showed that 5 out of 6 fistulas resolved following intubation. Post-operatively all lacrimal systems were patent with complete draining or minimal limitation of passage of fluorescein dye through the lacrimal system.
In the oldest patient (9 years), the fistula sealed following intubation but there was development of bilateral canalicular strictures which required repeat lacrimal intubation.
There were no documented post-operative complications and all children were followed up in clinic for at-least 12 months.

Conclusion:
The use of DSDCG in these cases helped to visualise the anatomical location of the fistula and diagnose co-pathology such as obstruction in 2 of the lacrimal systems. The information from the DSDCG influenced further patient management with fistulectomy combined with syringe and probing +/- lacrimal intubation. Further assessment with DSDCG allows confirmation of fistula closure.

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Sub-ciliary and facial degloving multidisciplinary approach to rare paediatric facial tumour

Author: Saeed Azizi (eposter presentation)

Purpose:

This case report discusses a joint subciliary and facial degloving approach in excising a large rare facial fibroblastic type tumour in a 2-year-old child. Photographic documentation of the operation was recorded.

Methods:

A 2-year-old girl presented with 3-month history with a rapidly progressive left sided facial lesion centred around the lateral nasal wall and medial canthus extending to her midface and infero-medial orbit. The child had developed sleep apnoea due to the mass-effect. After imaging, the lesion was biopsied by ENT.

Results:

MRI imaging showed a well-defined lesion 47x45x33mm involving the anterior maxilla, infero-medial orbit, extending into the nasal cavity, deviating the septum and protruding through the nostril. Review of the biopsy suggested a fibromyxoid tumour or a primitive myxoid mesenchymal tumour of infancy. MDT recommended surgical excision.

Joint ENT and ophthalmic surgery was undertaken using a mid-facial degloving technique through a gingivobuccal incision, oculoplastics carried out a sub-ciliary approach which allowed good access to the large tumour. Stanmore histopathology review showed a primitive myxoid fibroblastic type tumour which was difficult to classify with no evidence of malignancy.

Conclusion:

This is a case of a very rare rapidly growing tumour in a child causing significant respiratory issues and disfigurement. The Multidisciplinary approach allowed excellent access to remove this tumour. It also highlights the importance of multidisciplinary discussion and planning.

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Link to PDF ePoster
Abstract Number:353

Case Report: A full thickness skin graft pigmentation post-melanoma excision — masquerading as reoccurrence

Author: Tejal Patel (eposter presentation)

Purpose:
To report a case of post-operative pigmentation in a full thickness skin graft after excision of a melanoma which was spontaneously resolved.

Methods:
In this case, a 74-year-old woman presented with a three-month history of a right lower lid lesion. The patient had a history of sun exposure and was a non-smoker. The lesion was approximately 5cm by 4cm in size and had diffuse heterogeneous pigmentation with irregular borders and nodular texture. Histology confirmed the lesion was localised and consistent with a diagnosis of stage 1 lentigo maligna melanoma. The patient underwent a complete excision and repair with a full thickness skin graft from the ipsilateral upper lid to the lower lid.

Results:
Post-operatively the patient developed patchy pigmentation within the graft itself. This was suspicious and monitored closely for signs of reoccurrence of melanoma. Serial photographs were taken at each visit and over time the pigmentation spontaneously resolved and the graft returned to its normal texture and colour.

Conclusion:
Post-surgical pigmentation is not a common sign in graft tissue from the upper lid. There is no reliable predictor of the expected response and predictor of disease activity in melanoma lesions post skin grafting.

To date, there have been no reported cases of spontaneous resolution of pigmentation in graft tissue, where previous melanoma had been excised. This is the first reported case of its kind and should provide surgeons reassurance that post-operative pigmentation in graft tissue may not always be a suspicious sign of reoccurrence of melanoma.

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Link to PDF ePoster
Abstract Number: 354

Dehydrated human pericardium patch graft for management of Implant exposure in an ophthalmic socket.

Author: Linda Okafor (eposter presentation)

Purpose:
Exposure of orbital implant post enucleation or evisceration remains one of the common complications irrespective of the type of implant utilised. Dermis fat graft, temporalis fascia have been used to repair the implant exposure in anophthalmic sockets. Tutoplast pericardium, gamma sterilised dehydrated human pericardium has been used as a scleral patch graft for glaucoma drainage device exposure and scleral thinning post squint surgery. We report the use of Tutoplast patch graft to repair orbital implant exposure in this case series.

Methods:
The case notes of three patients who received Tutoplast pericardium patch graft to repair the implant exposure were reviewed and data regarding presenting symptoms, the type of implant, time to implant exposure from primary surgery and length of follow-up post Tutoplast pericardium patch graft and any post op complications was collected.

Results:
Three patients presented with implant exposure post primary implantation ranging from 3-20 years. The presenting symptoms were recurrent infection, discharging socket and discomfort in all three patients. Out of the three one had Medpor implant and two had silicone implant. Total follow-up ranged from 6-20 months. In all three cases, there was relief from symptoms of pain, discomfort and discharge; and graft had incorporated fully into the surrounding orbital tissue with no recurrent exposure noted during the follow-up period.

Conclusion:
Tutoplast pericardium has demonstrated a good safety profile and is suitable material to use as a patch graft for orbital implant exposure.

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Learning Lessons From A Successful Oculoplastic-Dermatology Partnership: What Attributes Of Patients’ Experience Are Earning 100% Patient Satisfaction At A Tertiary Centre for Mohs Surgery?

Author: Jessica Best (eposter presentation)

Purpose:
The Mohs Surgery Pathway (MSP) at Sheffield Teaching Hospital’s is an example of successful inter-specialty partnership. Over the course of 8 months, Oculoplastic surgeons reconstructed 19% of cases.

The Friends & Family Test (FTT)1 is now used to determine commissioning. RCOphth recommend annual patient experience data collection2. On FTT completion, 100% of patient’s using this service would recommend it.

We highlight a ‘model’ for a successful inter-specialty service.

Methods:
8 month prospective study determining patient-identified factors to improve patient experience during the MSP. 45 patients completed questionnaires to record pre-, intra- and post-operative experience.

The systems pathway to address the patient experience challenges will be outlined.

Results:
Pre-operatively, 100% of the cohort felt involved in their treatment decision, and rated pre-operative information as at least very good. Intra-operatively chair ergonomics were highlighted. Pain during the procedure varied widely with 46% scoring the local anaesthetic injection pain >4/10. Post-operatively, 13% of patients reported a post-operative concern of which 75% were resolved via the helpline.

Conclusion:
Use of multiple appointments facilitating manageable information transfer during pre-operative counselling was well received. Comfortable and aesthetic recovery facilities importance was highlighted. Robust pre-operative counselling is important to create appropriate patient expectations. The provision of a helpline run by a lead specialty facilitates an effective support avenue.

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Smartphone adaptor use for nasal endoscopy

Author: Jerome Ha (eposter presentation)

Purpose:
Nasal endoscopic examination is an important part of the preoperative assessment in patients presenting with nasolacrimal duct obstruction, particularly when planning endoscopic dacryocystorhinostomy (DCR). Using a smartphone adaptor with the nasal endoscope enables live image display on the screen of the smartphone, which can be viewed by more than one clinician at a time.

Methods:
There is no need to hold the eyepiece of the endoscope, as this is attached to the smartphone and is held by an assistant. The smartphone adaptor (RVA Smart-Clamp) costs less than £115.00 and fits most of the modern smartphones. This adaptor can be used with a flexible or rigid endoscope with a 31.75 mm eyepiece.

Results:
We use a smartphone adaptor for preoperative and post-operative examination in patients undergoing DCR and find it very useful in training junior doctors/fellows in the oculoplastic clinic. Attaching the smartphone adaptor to the flexible endoscope frees a hand of the clinician to allow removal of silicone stents postoperatively. We find this particularly useful, as flexible endoscope is more comfortable for patients compared to a rigid endoscope and can be used without the need of topical nasal anaesthetic or decongestant.

Conclusion:
The smartphone adaptor with the nasal endoscope is significantly cheaper and a less cumbersome alternative than a camera with monitor attachment required for displaying the image.

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Enucleation and evisceration: Analysis of indications and histopathological findings in the North East over 5 years.

Author: Lyudmila Kishikova (eposter presentation)

Purpose:
The purpose of this study is to report the indications for eye removal, and histopathological findings in anophthalmic surgeries performed in three eye units across the North East over a 5 year period. Anophthalmic surgery is an increasingly rare procedure. However, understanding the indication and a sequence of events which precede and lead to anophthalmic surgery, is beneficial in preventing it.

Methods:
A multi-centred, regional retrospective 5 year case study of all the anophthalmic surgery as carried at North East was carried out between 01.01.2012 and 31.12.2016. These Included 2 tertiary referral centres, Royal Victoria Infirmary at Newcastle, James Cook University Hospital at Middlesbrough along with Sunderland Eye Infirmary. The analysis included age, sex, type of surgery, indication, and underlying diagnosis. Histological diagnosis was also recorded.

Results:
63 eyes of 62 patients were identified for inclusion in the study. 33% of patients were females and 66% were males. Mean age was 57 years old, with the youngest patient being 12 and the oldest 90 years old. 1 patient unfortunately had bilateral evisceration secondary to underlying microphthalmia complicated by glaucoma. Painful blind eye (39/63) was the most common indication for anophthalmic surgery, followed by malignancy (7/63), perforation (8/63), infective causes including endophthalmitis (4/63), trauma (3/63) and poor cosmesis (1/63). Over 2 thirds of enucleations and eviscerations were performed on an elective basis (44/64). Trauma and infectious causes were more likely to undergo urgent surgery (anophthalmic surgery within a week of the decision to remove the eye). Only 2 cases were considered to have been performed on an emergency basis, and only 1 of these was operated on out of hours. Histologic assessment did not demonstrate any unexpected findings. ocular melanoma accounted for all cases of ocular malignancy in this series. There were no cases of sympathetic ophthalmia noted during the study period.

Conclusion:
Evisceration was performed more commonly overall in our series. This may reflect changing practice patterns, including the centralisation of ocular oncology services. In our region, anophthalmic surgery remains a tool in the management of severely traumatised eyes, although rarely in the emergency setting.

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Periocular Basal Cell Carcinoma: Under 40’s

Author: Rehan Rajput (eposter presentation)

Purpose:
Basal cell carcinoma (BCC) is the most common skin tumour of the head and neck typically affects the elderly. We aim to highlight the features of disease of periocular BCC in those under the age of 40 with respect to histological subtype and recurrence. Furthermore, we demonstrate the efficacy of managing this cohort of patients within a Mohs micrographic service in a multidisciplinary approach.

Methods:
A retrospective case notes review of all patients under the age of 40 undergoing periocular BCC excision and reconstruction over a 5 year period. All patients underwent excision under the same dermatological surgeon. Once all surgical margins were histologically clear of tumour all patients same day reconstruction under the oculoplastic service.

Results:
Over a 5 year period a total of 11 patients under the age of 40 (average age 32) were identified with periocular BCC who underwent excision and reconstruction within our Mohs service. Nine patients (81%) were found to have a nodular histological subtype with one patient found to have both nodular and infiltrative and one patient infiltrative only. One patient had no residual tumour following punch biopsy. There were no reported cases of recurrence with an average follow up of 8.5 months.

Conclusion:
Previous series in the literature from the UK have reported a BCC recurrence rate as high as 23.1% in their under 40 years cohort. 81% of tumours in this age group are of nodular subtype that are often well circumscribed with well defined borders. In such cases excising tumours with less than 3mm surgical margins is common practice. Managing this cohort of patients within a Mohs service results in negligible recurrence rates and also results in cost saving of greatly reduced follow up.

Additional Authors
The Effect of Intra-orbital Triamcinolone on Upper Eyelid Retraction in Patients with Active Thyroid Eye Disease

Author: Manaim Shah (eposter presentation)

Purpose:
Thyroid eye disease is a common condition encountered by ophthalmologists worldwide with limited treatments available during the active phase. Previous case reports have shown improvement in upper eyelid retraction with intra-orbital Triamcinolone however further research is needed. Our aim was to document the effect of intra-orbital Triamcinolone on upper eyelid retraction in patients with active thyroid eye disease.

Methods:
This is a case series in which 3 patients with active thyroid eye disease and upper eyelid retraction presented to our clinic from July 2018 to January 2019. As per previous case reports, 1mL of 40mg/mL Triamcinolone was injected intraorbitally around levator palpebrae superioris (LPS). Parameters measured were upper scleral show and upper margin reflex distance (MRD). Patients were followed up 2 weeks after the injection.

Results:
Two out of 3 patients had complete resolution of upper scleral show and improvement in upper MRD at the first follow up visit. One patient however had no improvement initially and so was given a second injection at 2 weeks. She later showed no upper scleral show and improvement in upper MRD 2 weeks after the second injection. This is highlighted in clinical photographs taken.

Conclusion:
Intra-orbital Triamcinolone has been effective in reducing upper eyelid retraction in our patients with active thyroid eye disease. This is thought to be due to the targeted injection of steroid at LPS causing reduced inflammation and subsequent reduced retraction of muscle. In these cases, the use of systemic steroids and associated side effects were avoided. Additional research is needed however results from our case series have shown a positive effect.

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Link to PDF ePoster
Cry No More: Lacrimal Gland Botox for Treating Epiphora

Author: Edward Pritchard (eposter presentation)

Purpose:
To evaluate our experience of lacrimal gland botulinum toxin A (BoNTA) for treating epiphora.

Methods:
Retrospective case note review of consecutive patients treated with lacrimal gland BoNTA injections over a four year period between Jan 2014 and Jan 2018.

Results:
Over the four year period fifty patients and 72 eyes (9 right, 19 left, 22 bilateral) underwent injection of botox to the lacrimal gland. Epiphora was associated with patent lacrimal ducts in 27 patients (54%) and these patient typically had unsuccessful initial surgery – 13 had prior DCR+-tubes, 9 lid tightening (LTS) and 6 underwent punctoplasty (e.g. 3-snip). Other indications for treatment included gustatory hyperlacrimation (n= 6, 12%), canalicular obstruction (n= 8, 16%) and punctal stenosis (n=3, 6%). In those with canalicular obstruction 7 of 8 patients chose a trial of botox over surgical intervention.

The most common dose was 5 units (41 eyes) then 7.5units (19 eyes) and 10units (8 eyes). Less commonly 2.5 units (3 eyes) and 3.75units (one eye). Doses were titrated and augmented to patient reported response. Complications were limited to transient diplopia (n=7, 14%) and ptosis (13 patients, 26%). A total of 43 patients (86%) returned for repeat injection and 7 patients (14%) reported no benefit.

Conclusion:
Epiphora leads to blurred vision, can affect quality of life and cause social embarrassment. Lacrimal gland botox provides an excellent alternative therapy with good results. In our experience, upward titration of the dose has greater patient reported success with the caveat of increased risk of complications.

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Ocular and Orbital Trauma in a Metropolitan Eye Casualty – Who, What, When, Where and How?

Author: Ahmad Aziz (eposter presentation)

Purpose:
Orbital and ocular trauma are a significant cause of attendances to casualty departments and often require multidisciplinary management. There is relatively little peer reviewed published literature on patient demographics and causes of trauma in the UK or outcome and inter or intra specialty referral data. We aimed to assess these to improve future service planning.

Methods:
We conducted a retrospective cohort study. All patients attending A+E units at Imperial College Healthcare NHS Trust between April 2017 and March 2018 with a coded discharge diagnosis of an ocular or orbital injury were included. Data was obtained on the patient demographics and cause and nature of their eye injury. Investigations, procedures and onward referrals were also evaluated.

Results:
248 patients met the inclusion criteria, 0.5% of all casualty attendances that year. 74% of patients were male and the mean age was 36 years (range 4-89 years). 14% were under 18. 67% had an ocular injury, 21% an orbital injury and 13% of patients had both orbital and ocular injuries. The most common diagnosis was traumatic uveitis (123 patients, 50%). Assault was the most common cause of injury (80 patients, 32%). A significant majority of patients required follow up (86% p<0.0001), 58% in ophthalmology, 41% with oral and maxillofacial surgery (OMFS) in another hospital and 2% with other specialties.

Conclusion:
Our study illustrates the burden of trauma on emergency and elective eye services. We hope that by better understanding our patient population, we have optimized resource utilisation including a better pathway between OMFS and ophthalmology and can recommend targeted intervention to reduce the number of patients requiring casualty assessment.

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Late Migration of Silicone Oil from the Vitreous Cavity to the Upper Eyelid

Author: Conor Malone (*eposter presentation*)

**Purpose:**
To report a rare and late oculoplastic complication of retinal detachment surgery.

**Methods:**
A 71-year-old man attended the oculoplastic clinic complaining of drooping eyelids. His past ophthalmic history included left retinal detachment repair 20 years previously. On examination, he had bilateral moderate dermatochalasis and left aponeurotic blepharoptosis. Lid crease height was 8mm on the right and 10mm on the left. Margin reflex distance (MRD) 1 was 5mm on the right and 1mm on the left, with MRD2 of 5mm on both sides. Levator function was 14mm on the right and 12mm on the left. Motility was otherwise normal. The left tarsal plate was notably thickened and yellow.

The patient underwent bilateral upper lid blepharoplasty and left ptosis repair. As the first skin incision was made on the left upper lid, a discharge of oily refractive particles was noted. Approximately 2ml of silicone oil was expressed from the lid and surgery continued without complication.

**Results:**
At 2 weeks post-operatively, lid crease height was 8mm on both sides. MRD1 was 5mm on the right and 4mm on the left, with MRD2 of 5mm on both sides. Levator function was 14mm on the right and 13mm on the left. Wounds were healing well and the patient was very satisfied with the results. Visual acuity was 6/9 in both eyes with normal intraocular pressure and normal fundal examination.

**Conclusion:**
Migration of silicone oil from the vitreous cavity causing mechanical ptosis is a rare and late complication of retinal detachment surgery. We identified 5 previous similar case reports with presentation between 2 months and 12 years after oil implantation. At 20 years, this case is the latest documented presentation of such a complaint.

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[Link to PDF ePoster]
Remember the indirect carotid cavernous fistula

Author: Cornelia Poitelea (eposter presentation)

Purpose:
Ophthalmologists are often the first specialists to examine patients with indirect carotid cavernous fistula ICCF), who are referred as chronic intractable conjunctivitis. We would like to highlight the key features of this potentially dangerous condition, whose diagnosis is often delayed and often unrecognized, due to less dramatic clinical presentation.

Methods:
We present a case series of 3 different female patients with ICCF.

Patient 1: a 68 year old woman with amblyopic left eye presented with 3 months history of headache and left periorbital dull ache. She had bilateral chemosis, engorged scleral vessels and reduced left eye vision and motility, high intraocular pressure.

Patient 2: a 71 year old woman with 2 weeks history of left eye pain and headache. Left eye was chemosed and proptosed, with engorged scleral vessels. She was initially treated for scleritis, later referred to oculoplastic specialist as no improvement.

Patient 3: a 61 year old woman with 6 weeks of headache and bilateral red, painful eyes and diplopia. She had a left 6th nerve palsy, chemosis and engorged scleral vessels.

All patients had orbital imaging.

Results:
Patient 1 and 3 had ICCF on CT imaging and cerebral angiogram. Patient 2 had a left cavernous sinus partial thrombosis and was anticoagulated for 3 months. A repeat scan showed resolution of the thrombus, but an ICCF.

All 3 patients were referred for neurosurgical MDT and patients 1 and 2 had coiling of the fistula and fast resolution of the symptoms and signs.

Patient 2 had conservative longterm massaging of the carotid as advised by radiologist and remained stable.

Conclusion:
ICCF can lead to brain haemorrhage. Urgent neuroMDT referral is essential. Ophthalmologists should be aware and familiar with this rare condition.

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A Case Series Of Orbital Immunoglobulin G4-Related Inflammation : An Emerging Disease

Author: Dr Amrita Sawhney (eposter presentation)

Purpose:
To present the spectrum of clinical manifestations in thirty cases of orbital IgG4-related disease along with their epidemiological, radiological and histopathological data and to evaluate the clinical outcomes of the disease with targeted therapies like Immunosuppressants and Rituximab.

Methods:
A prospective interventional study of thirty cases presenting with wide spectrum of clinical manifestations, that included upper eyelid swelling resulting from dacryoadenitis (16/30 cases), proptosis with extraocular muscles or intraconal fat involvement (10/30) and proptosis with lid swelling due to both lacrimal gland and extraocular muscles involvement (4/30), was carried at a tertiary hospital in New Delhi, India, between 2014-2019. Epidemiological profile and lab results were noted. Incision biopsy was carried out after orbital imaging and the diagnosis was made based on comprehensive diagnostic criteria by Umehara et al (2012). All the patients were started on oral steroids along with Immunosuppressants (Azathioprine or Methotrexate). Rituximab was used in cases non-responsive to the aforementioned drugs.

Results:
The average age at presentation was 40 years. The patients were diagnosed as Definite IgG4 disease in 12/30 cases, Possible IgG4 in 5/30 cases and Probable IgG4 in 13/30 cases. Twenty two of thirty cases had good clinical outcome with steroids (30/30 cases) and Immunosuppresants (Azathioprine 27/30 or Methotrexate 3/30). Eight of thirty cases resistant to steroids were stabilised with Rituximab therapy.

Conclusion:
The diagnosis of IgG4-Related Disease is critical as it responds well to targeted therapies like Immunosuppressive agents and Rituximab resulting in better clinical outcomes.

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Link to PDF ePoster
Abstract Number: 367

Living with an artificial eye – the emotional and psychosocial impact

Author: Rhys Davies (eposter presentation)

Purpose:

Growing evidence suggested that patients living with anophthalmia have lower quality of life scores and increased rates of mental health disease. We felt the need to evaluate the emotional and psychosocial well being of patients that had undergone either enucleation or evisceration within our practice and to identify whether further emotional support or counselling would be beneficial.

Methods:

We identified all patients over the age of 18 years that had undergone an evisceration or enucleation performed at the Princess Alexandra Eye Pavilion, Edinburgh between the 1st January 2011 and 1st January 2018. We aimed to find out more about their experience of living with an artificial eye via targeted questionnaires.

Results:

We identified 52 patients that had undergone either enucleation or evisceration and 39 of these patients were still living. We attempted to contact all 39 patients and received 25 responses. Pain was identified as the predominant cause for patients proceeding with eye removal. The impact of an eye amputation caused significant loss of confidence after surgery and our study indicated that patients wanted to know more about the operation: the outcome, the prosthesis and how it will look/fit. With nearly half of patients requesting more emotional support both in the pre and postoperative stages it seems they were not adequately emotionally prepared for what was to come.

Conclusion:

Loss of an eye following destructive eye surgery and use of an artificial eye has wide ranging emotional, psychosocial and economic impacts on the patient. The care should not stop when the patient leaves the operating theatre. To maximise postoperative quality of life, a holistic approach, involving counsellors and psychotherapy is essential.

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Link to PDF ePoster
5 year evaluation of surgical approach and outcomes of anophthalmic surgery at North East: What are we doing and how are we doing it?

Author: Lyudmila Kishikova (eposter presentation)

Purpose:

Enucleation and evisceration are therapeutic surgical approaches used in the management of intraocular tumours, severe ocular trauma and painful blind eyes. There are a number of different approaches towards the surgery as well as post-operative care. In this study we set out to assess anophthalmic surgery performed in the North East of England, in order to understand current practice, identify trends and allow for service provision planning based on the findings.

Methods:

This is a multi-centered evaluation of all anophthalmic surgery recorded in the North East region, which included 2 tertiary trauma centres- Royal Victoria Infirmary in Newcastle; James Cook University Hospital in Middlesbrough as well as Sunderland Eye Infirmary between 01/01/2012 and 31/12/2016. The type of surgery, presence of tarsorrhaphy, implant size, type of anaesthesia, antibiotics used, type of implant, complications and further procedures were analysed.

Results:

63 eyes of 62 patients, underwent anophthalmic surgery during the study period, with 54 enucleations and 9 eviscerations performed. While the majority of procedures were performed under general anaesthesia in 61 cases, local anaesthesia alone was used in 2 cases. Tarsorrhaphy was included in the primary anophthalmic surgery in 70% of cases. The choice of implant included: Silicone 36%, Acrylic 34%, Medpore 11%, Bioceramic 11%. The most commonly chosen size of implant was 20mm, which was used in 42% of the cases. The complications were rare and included: socket cyst n=4, subconjunctival haemorrhage n=2, slow wound closure n=1, socket infection n=4, implant exposure n= 4, conjunctival prolapse n=2, post-operative swelling n=1 and orbital haematoma n=1. Subsequent procedures required were also rare. Implant exchange was performed in n=2 cases, excision of socket cyst in n=3, temporary tarsorrhaphy in n=2, lid tightening in n=1, examination under anaesthesia n=2, dermis graft n=1. Postoperative systemic antibiotics were prescribed in 70% of cases, with oral co-amoxiclav most commonly used.

Conclusion:

Our evaluative study demonstrates that anophthalmic surgery is rare, but generally safe procedure, with evisceration being most commonly performed. The complication rate was very low and the subsequent surgery to correct any of the issues was rare. Interestingly, the rate of immediate post-operative infection was no higher in the patients who did not receive post-operative antibiotics. However, a prospective study would be required to confirm this.

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Purpose:
The Royal College of Ophthalmology curriculum states that all trainees should ‘Be able to perform enucleation and evisceration’ and requires them to submit practical assessments on a minimum of two cases. Trainees have reported difficulty in obtaining this sign-off partly due to a lack of exposure to suitable cases. This study was performed to determine the number and characteristics of eye removal procedures performed both nationally and locally.

Methods:
Retrospective data was collected both nationally and locally within the Wessex training deanery using hospital episode statistics and from electronic and paper medical records.

Results:
Linear regression analysis demonstrated a national reduction year on year in number of eye removal operations performed since 2001 (R²=0.81, p<0.0001). Local data demonstrated a similar statistically significant reduction in number of operations performed over time, and a reduction in the proportion of cases performed as an emergency (R²=0.25, p<0.05). Almost all operations were performed by a consultant with most also being performed by a member of the oculoplastic team. Demographic data and indication for eye removal will also be presented.

Conclusion:
Enucleation or evisceration has traditionally been seen as a skill required of the general ophthalmologist. However the number of eye removal operations performed each year has been reducing, a fall that has coincided with improved management of neovascular glaucoma including the introduction of Anti-VEGF. The majority of cases are now performed by non-trainee doctors with oculoplastic subspecialty training.

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An exploratory study using texture analysis software to provide quantitative evidence of active thyroid associated ophthalmopathy on MRI scans

Author: Sean Zhou (eposter presentation)

Purpose:
The use of texture analysis software is not new, and has been explored in several medical specialties in attempts to aid radiological or even microbiological diagnosis of a variety of diseases (1-3). Within Ophthalmology texture analysis software has shown potential in the ability to classify orbital tumours (4).

Thyroid associated ophthalmopathy is the most common cause of orbital inflammation and proptosis in the adult population within the western population (5), affecting over 400,000 patients in the UK (6). Identifying active thyroid associated ophthalmopathy and prompt treatment is crucial in preventing detrimental impact to structures of the eye. We know through previous works of Potts et al that comparison between the inflamed recti and adjacent temporalis muscle can be used as a surrogate marker of thyroid associated ophthalmopathy activity (7).

We aim to explore the use of texture analysis software in identifying active thyroid associated ophthalmopathy on MRI scans within a heterogeneous retrospective cohort.

Methods:
This single centre retrospective study used a heterogeneous sample of patients who presented from 2018-2019 with active thyroid associated ophthalmopathy requiring pulsed intravenous steroid therapy. MRI images of these patients were retrospectively obtained and fully anonymised. Texture analysis software MaZda was then used to compare the signal intensity ratio (SIR) between the medial rectus muscle and the adjacent temporalis muscle as reference (7).

The texture classification and signal intensity determined by MaZda between the medial rectus and temporalis muscle was then compared using Microsoft Excel, IBM SPSS, and MaZda software.

Results:
Preliminary results show that the MaZda texture analysis software is easy to use once calibrated in assisting the interpretation of active thyroid associated ophthalmopathy patient’s MRI scans. Initial analysis shows distinctly different signal intensity and pixel characteristics between inflamed medial rectus muscle and the adjacent temporalis muscle in patients with active disease.

Conclusion:
The results of this study show promise for the use of texture analysis software in providing quantitative data in support of the radiological diagnosis of active thyroid associated ophthalmopathy. We hope this proof of concept study drives further research interest and plan to follow up with larger direct cohort comparison studies to analyse real world specificity and sensitivity.

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Abstract Number: 371

The Management of Periorbital Nodular Fasciitis using Intrallesional Triamcinolone

Author: Shay Keren (eposter presentation)

Purpose:
To report a case of orbital nodular fasciitis (NF) in a paediatric patient treated with intra-lesional triamcinolone (IL-TA). NF is a rare subcutaneous, nodular, pseudo-sarcomatous, fibroblastic proliferation mainly reported in the subcutaneous or superficial fascia.

Methods:
We present a case report of an 8 year old patient, who presented to the Oxford Eye Hospital, with a rapidly progressive lesion affecting the left supero-medial orbital rim. The mass occurred at the site of previous surgery (a bi-coronal flap). An incisional biopsy confirmed the diagnosis of nodular fasciitis. The patient was managed with a single intralesional injection of triamcinolone.

Results:
Four months post-injection there was complete resolution of the orbital mass. No local or systemic side effects were noted at 15-months follow-up, with no evidence of recurrence.

Conclusion:
This is the first documented case using IL-TA as a first-line option in the management of orbital nodular fasciitis. Wide local excision has been widely adopted as the standard treatment for NF in the published literature. IL-TA confers several advantages over surgery including: preservation of the underlying supra-orbital nerve preventing paraesthesia, no scar or disease recurrence. The procedure is safe and should be considered as a first-line option for these rare lesions. The oculoplastic surgeon should be aware of the possibility of NF in any patient with a rapidly progressive mass, particularly at a site of previous surgery.

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Link to PDF ePoster
Abstract Number: 372

Orbital manifestations of acute leukaemia – a case series

Author: Siddharth Ogra (eposter presentation)

Purpose:
Haematological malignancies can be associated with orbital involvement and vary in their presentation. It is generally rare for orbital involvement to be the presenting feature of these disorders. Often the orbital signs and symptoms mimic other pathologies, and can lead to delays in diagnosis. Our purpose was to evaluate the presenting clinical features in patients with orbital involvement as the initial pathology leading to a diagnosis of underlying haematological malignancy.

Methods:
Case analysis of all patients presenting to the Ophthalmology service in two Ophthalmic centres over the last 10 years.

Results:
A total of six cases met our original brief. Patients were generally young, and presented with unilateral symptoms and signs. There was often associated strabismus, but vision loss was not common. Patients were commonly treated for infective causes in the community prior to referral into the ophthalmic service, but significant delays in diagnosis were rare. A neoplastic process was suspected very early in most patients once evaluated in the ophthalmic service. Patients mainly had acute myeloid leukaemia, but acute lymphoblastic leukaemia was also present. Associated systemic symptoms were also often present.

Conclusion:
Primary orbital involvement in haematological malignancy is rare, and often affects younger patients. It is often unilateral and can have other associated ocular and systemic features. Multidisciplinary care is essential in these patients.

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Link to PDF ePoster
Orbital implant following evisceration and enucleation: A 10 year review of surgical indication and outcome

Author: Surabhi Shalini (eposter presentation)

Purpose:
With the changing face of ophthalmology, we noted a significant variation in the indications for performing evisceration and enucleation in our service. We therefore carried out a service evaluation to see the surgical outcomes and indications in patients undergoing evisceration and enucleation over a 10 year period.

Methods:
A retrospective review of case notes and electronic patient records. We looked at patient demographics, surgical indications and outcomes including complication rates and further surgical input.

Results:
A total of 56 patients underwent surgery, out of which 50 (89%) underwent evisceration and 6 (11%) underwent enucleation. The common indications of surgery were trauma in 17 (30.4%) cases, painful blind eye in 10 (17.9%), endophthalmitis and phthisical eye in 5 (8.9%) cases each and corneal perforation in 2 (3.5%). 39 patients (73%) had acrylic implants. Orbital implants were not inserted in 15 patients (27%). 3 (7.3%) patients developed implant exposure after a mean duration of 36 months.

Conclusion:
Recent literature review revealed a mean implant exposure rate of 2-5 % in acrylic implants which is comparable to 5% exposure rate in our patient cohort. All of the 3 implant exposures noted occurred in eviscerated patients. Post enucleation socket syndrome(PESS) was seen in 3(5.35%) cases and ptosis alone in 7 (12.5%) cases. This is in comparison to 7 % from literature for deepening of the superior sulcus; one component of PESS. Further correction surgery was needed in 5 (8.9%) cases.

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New and original observations on neurological mechanisms affecting the lower eyelid level – An overlooked phenomenon?

Author: Anjana Haridas (eposter presentation)

Purpose:
To present evidence and explain the possible neurological mechanism to assess the validity of an original observation (Mehta): that there is an alteration in the level of the unoperated, ipsilateral lower lid, when a malposition of the upper lid is corrected by surgery.

Methods:
Retrospective evidence from ophthalmic literature to date was analysed to determine the validity of this original concept.

Results:
Evidence from published literature (date range 1966 – 1991) demonstrates that this observation was overlooked in cases of upper lid surgery. The authors present photographic case studies to illustrate this phenomenon. Hering’s and Sherrington’s laws are used as a basis to explain these results.

Conclusion:
Without surgery on it, the lower eyelid level can be altered reciprocally when the position of the upper eyelid is altered by surgery.

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Use of penile full thickness skin grafts in complex eyelid burns reconstructions to avoid sight threatening corneal exposure

Author: Adriana Chilinska (eposter presentation)

Purpose:
to present the value of foreskin graft as a donor site for a repair of upper and lower lids in men sustained severe burns

Methods:
we present series of 5 cases of foreskin grafts to manage severe thermal burns to upper and lower eyelids in men aged 21-50 years, treated in Royal Victoria Infirmary between 2013-2018 in close cooperation between Oculoplastic and Plastic Surgery teams. Circumcision was performed by plastic surgeon, graft was placed on eyelids by oculoplastic surgeon using a fibrin sealant. Surgery was unilateral in one case, bilateral in four cases.
All of our patients sustained major burns involving facial area with 8-80 % of total body surface burn. 1 patient sustained severe chemical burns to corneas, one eye had to be enucleated.

Results:
Good graft take was achieved in 4 patients, failed in 1 as tarsoraphy was open too early. Good cornea protection was provided. The colour match of skin graft was satisfying. There was no donor site morbidity. Photographs will be presented.

Conclusion:
The common donor sites are rarely accessible in severe burns. Prepuce skin is an ideal material for eyelids burn contracture due to high content of elastic fibres and a low content of smooth muscle fibre what makes it less likely to shrink as compared to any other graft sites. Prepuce skin is hairless, plentiful and easy to harvest. The disadvantage is its hyperpigmentation and low thickness that makes it more prone to laceration and infection.
The foreskin is often overlooked by surgeons as a donor options and should be considered primary treatment modality in men for eyelids reconstruction followed major facial burns providing good cornea protection.

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Abstract Number: 376

Slow Mohs surgery for the treatment of periocular basal cell carcinomas, three and five year follow-up.

Author: Richard Thornton (eposter presentation)

Purpose:
Basal cell carcinoma (BCC) is the most common skin malignancy, disproportionately occurring in sun exposed areas, such as the eyelids. Whilst surgical excision is considered the most effective method for treating periocular BCCs, there is a paucity of evidence as to which surgical technique is the most appropriate. Mohs micrographic surgery is likely to be superior to traditional surgical excision in achieving clear excision margins and sparing of tissues, but requires immediate access to histology. Slow Mohs surgery offers an alternative when immediate histology is unavailable, as tumour excision and reconstruction are performed in two separate procedures. In this retrospective case series is reported the 3 and 5 year outcomes following Slow Mohs surgery.

Methods:
193 consecutive patients who had undergone Slow Mohs surgery, between January 2009 and December 2015 at a large district general hospital in the south of the UK, were identified retrospectively using electronic theatre records. Electronic lab reports and patient records were then utilized and the data analysed using EXCEL and SPSS.

Results:
157 patients had a diagnosis of BCC. Following exclusions, 137 survived to be included in the 3 year recurrence cohort. Of these, 2.92% recurred within 3 years. A smaller group of 68 patients survived and had follow-up lasting 5 years, within this group there was a recurrence rate of 4.41%.

Conclusion:
Slow Mohs potentially achieves recurrence rates comparable to Mohs micrographic surgery, offering an alternative should immediate histological examination not be available. There currently exists little evidence comparing the techniques prospectively, nor is there cost comparison between them.

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Is there a role for Hyaluronic acid fillers in the management of congenital ectropion?

Author: mohammed mohyudin (eposter presentation)

Purpose:
Non-surgical management with Hyaluronic acid (HA) fillers has been used successfully in children with congenital ectropion, as a temporizing measure and in deferring invasive surgical intervention. Our case series demonstrates the effect of HA and it’s greater success in conjunction with traditional skin grafting.

Methods:
A case series of three children treated with HA for congenital ectropions and a review of literature.

Results:
Case 1: 2 year old girl with congenital ectropion of all 4 eyelids, presented with exposure keratopathy. Restylane HA pre-tarsal injection improved right eye lid position, however she developed left sided corneal perforation. A left lower lid skin graft subsequently allowed corneal healing.
Case 2: 3 year old girl with Downs syndrome and bilateral congenital ectropions had pre-tarsal Resylane HA injections. This helped reduce her palpebral apertures, but did not help with nocturnal lagophthalmos. She recently had right upper and lower lid skin grafts which has helped with this.
Case 3: 1 year old infant with history of congenital ectropion as a result of ichthyosis presented with exposure keratopathy as a result of lagophthalmos. Pre-tarsal Restylane HA allowed improvement in lagophthalmos and corneal ocular surface disease within 3 months.

Conclusion:
HA fillers allow effective anterior lamellar expansion and improvement in approximation of the eyelids to the globe, thus mitigating keratopathy from lagophthalmos and risks of amblyopia from eyelid patching and lubricant use. However, in the majority of patients, surgical intervention with skin grafting was required, suggesting that a combination of surgical and non-surgical intervention must be sought in extreme cases to prevent sight loss.

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