Irish College of Ophthalmologists

Eye Doctors of Ireland

Protecting your Vision

ICO Winter Meeting and Annual Montgomery Lecture

2023

Albert Lecture Theatre,
Royal College of Surgeons in Ireland

FRIDAY 1st DECEMBER 2023

About the ICO

Established in 1992, the Irish College of Ophthalmologists (ICO) is the recognised training and professional body for medical and surgical eye doctors in Ireland.

In 2018, the ICO marked the very significant milestone of the 100th Anniversary of the founding of the Irish Ophthalmological Society, the forerunner to the Irish College of Ophthalmologists.

The ICO is a registered Irish charity. We are committed to the advancement and improvement of eye health and patient safety and work to protect, enhance and promote the highest standards in the delivery of eye care.

The delivery of healthcare requires a lifelong commitment to learning and the ICO's goal is to provide and support education and learning for ophthalmologists in training, in practice and those who work alongside them as they deliver care to patients.

Irish College of
Ophthalmologists
Eye Doctors of Ireland
Protecting your Vision

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Programme

2.00pm **WELCOME:**
Mr John Doris
President, Irish College of Ophthalmologists

2.05pm **Short Presentations**

Chair:
Mr Sean Chen
Chair, ICO Scientific and Professional Competence Committee

Comparing the Safety and Efficacy of Preserflo Microshunt Implantation and Trabeculectomy for Glaucoma: A Systematic Review and Meta-Analysis
Adan Khan

Initial Safety and Efficacy of Combined iStent Inject and Phacoemulsification in Mild-Moderate POAG
Saad Martini

Micropulse Cylodiode Laser in the Treatment of Refractory Glaucoma – The Irish Experience
Simon Neary

An Analysis of Posterior Orbital Tumours Managed at an Irish Ophthalmology Tertiary Referral Centre
Edward Ahern

A Review of Iris Claw Intra-Ocular Lens Implantation over Five Years
Luke O'Brien

Botulinum Toxin as a Treatment and a Diagnostic Tool in Adult Strabismus
Liam Bourke

Quality of Life Study to Evaluate the Incidence of Ocular Surface Disease in Patients Receiving Fluoropyrimidines Based Systemic Anti-Cancer Therapy
Hadia Paryani

Ocular Adnexal Sarcoidosis
Pranav Gnanamoorthy

Five Year Outcomes from Hydroxychloroquine (Plaquenil) Induced Retinopathy Screening in a Large Tertiary Hospital
Fionn O'Leary

Single Centre Analysis on Binocular Esterman Visual Field Tests
Julia Zhu

Improving Patient Compliance with Medication and Glasses Bring – In Requirements at the Primary Eye Care Centre in CH07
Danyal Memon

Programme

3.30pm **Improving Patient Care and Outcomes with National Clinical Audit**

Chair:
Mr John Doris
President ICO

The Benefits of Selected Measurement with National Clinical Audit to Maximise Impact for Patients

Dr Brian Creedon
Clinical Director of the National Office of Clinical Audit, Dublin Consultant Palliative Medicine Physician, University Hospital Waterford

Irish National Orthopaedic Register; Lessons Learned on Implementing an Implant Registry

Ms Suzanne Rowley
Audit Manager, Irish National Orthopaedic Register, National Office of Clinical Audit, Dublin

UK AMD Audit – Results, Challenges and Plans
Mr Martin McKibbin
Clinical Lead UK AMD Audit, Royal College of Ophthalmologists and National Ophthalmology Database; Consultant Ophthalmologist, Leeds Teaching Hospitals NHS Trust

5.00pm: **Presentation of the John Blake Medal for Best Short Presentation**

Annual Montgomery Lecture 2023

5.00pm **Drinks Reception**

6.00pm **Welcome & Introduction**

Mr John Doris, *President, ICO and*
Prof Camilla Carroll, *RCSI Council*

6.10pm **Montgomery Lecture**

Paediatric Cataract Diagnostics – and the Role of Genetics in Improving Precise Diagnosis
Professor Christopher Lloyd
Consultant Paediatric Ophthalmologist, Great Ormond Street Hospital for Children in London

Speaker Biographies

Dr Brian Creedon

Dr Brian Creedon

Dr Brian Creedon Clinical Director of the National Office of Clinical Audit, RCSI, Dublin; Consultant Palliative Medicine Physician, University Hospital Waterford

Dr Brian Creedon is the Clinical Director for the National Office of Clinical Audit. Dr Creedon has practiced as a Consultant Palliative Medicine Physician for 14 years in the south east of Ireland (University Hospital Waterford). Dr Creedon is a Senior Lecturer (RCSI & UCC) and previously was in a tenured role as Senior Fellow in Palliative Medicine (TCD & UCD). This fellowship focused on the development, with colleagues, of patient outcome measurement in palliative care.

Dr Creedon believes that this approach will allow our healthcare system to evolve around the needs of patients (and their families). He continues to advocate for the use of national clinical audit, clinical audit and quality improvement in healthcare to create an improvement culture for patients, families, students, trainees and staff.

He has previously served in various leadership roles in healthcare including National Clinical Lead for Palliative Care, chair of the Irish Palliative Medicine Consultants Association and chairman of the board of directors of the Solas Cancer Support Centre.

Ms Suzanne Rowley

Ms Suzanne Rowley

Irish National Orthopaedic Register Manager, National Office of Clinical Audit, RCSI, Dublin

Ms Suzanne Rowley is the manager for the Irish National Orthopaedic Register (INOR) at the National Office of Clinical Audit in RCSI. The INOR aims to improve the quality of services and care provided to patients having joint replacement surgery. By using patient scoring systems and recording on implant performance and patient outcomes, INOR aims to monitor the safety of implants and support hospitals should an implant recall occur. She has extensive experience in clinical audit having previously been the cancer audit manager at St James's Hospital, Dublin.

Suzanne started her career in healthcare as a Radiation Therapist at St Luke's Hospital. She achieved her radiography degree at Ulster University and has a number of post graduate qualifications covering Information Technology, Statistics and Risk Management and Quality in Healthcare. She sits on the INOR Governance Committee in the National Office of Clinical Audit.


Mr Martin McKibbin

Mr Martin McKibbin

Clinical Lead for the UK AMD Audit, Royal College of Ophthalmologists and National Ophthalmology Database; Consultant Ophthalmologist, Leeds Teaching Hospitals NHS Trust

Mr Martin McKibbin has worked as a Consultant Ophthalmologist at Leeds Teaching Hospitals NHS Trust since 2001. He has clinical and research interests in age-related macular degeneration, vascular and inherited retinal disease.

In 2020, he was appointed Clinical Lead for the UK AMD Audit, managed by the Royal College of Ophthalmologists and supported by the National Ophthalmology Database. He is the AMD lead in Leeds Teaching Hospitals and provides inherited eye disease clinics in several local hospitals. He has been chief and principal investigator for a number of interventional and observational studies, both commercial and non-commercial.


Professor Christopher Lloyd

Professor Christopher Lloyd

MB FRCS FRCOphth

Consultant Paediatric Ophthalmologist, Great Ormond Street Hospital for Children in London

Professor Chris Lloyd is a Consultant Paediatric Ophthalmologist and Head of the Department of Ophthalmology at Great Ormond Street Hospital for Children in London. He is a Senior Lecturer at University College London and holds an honorary Chair from the Manchester Academic Health Science Centre, University of Manchester.

His training included undergraduate studies at St Bartholomews' Hospital London, SHO and registrar posts at Manchester Royal

Eye Hospital and 2 years as a clinical fellow at Great Ormond Street. He returned to Manchester as a senior registrar/lecturer in 1993. He became Manchester's first sub-specialist consultant paediatric ophthalmologist in 1995 and together with his colleagues (particularly Sus Biswas, Jane Ashworth and Cecilia Fenerty) built up and developed the MREH paediatric eye service into a large tertiary referral and teaching centre. He took up his current post at Great Ormond Street in 2016.

Chris has over 100 published papers, 12 book chapters and co-edited a text book (with Prof Scott Lambert of Stanford University, California) on congenital cataract diagnosis and management.

He regularly lectures nationally and internationally. He received an "Honor award" from AAPOS (the American Association for Paediatric Ophthalmology and Strabismus) in 2017 and served until 2021 on the AAPOS ophthalmic genetic task force. He was the UK board member of the European Paediatric Ophthalmology Society from 2012 to 2016. He received the University of Sydney's Claffy medal in 2006 and 2019, the 2018 BIPOSA Claud Worth medal and in 2023 the Montgomery medal (Royal College of Surgeons of Ireland).

He has a longstanding clinical and research interest in the diagnosis and management of infantile and childhood cataract and other inherited eye disorders. He collaborated with Professor Graeme Black and the ManGen team in the development of a targeted next generation sequencing panel for improving diagnostic precision in children with cataract. Over the last 19 years he has contributed to many teaching workshops at AAPOS, the AAO (American Academy of Ophthalmology) and the Annual Congress of the Royal College of Ophthalmologists.

For 5 years Chris was chair of the Paediatric Sub-committee of the Royal College of Ophthalmologists and is currently a board member and Vice-President of the British and Irish Paediatric Ophthalmology Association (BIPOSA).

Away from paediatric ophthalmology, Chris lives in Hertfordshire with wife Fiona. They have four adult children. He enjoys most sports and is a lifelong supporter of Middlesbrough FC - but also has a soft spot for Manchester United (having been a season ticket holder at Old Trafford for many years). He is a keen gardener and has transformed the plot in his home in Hertfordshire into a major vegetable production line!

Comparing the Safety and Efficacy of Preserflo Microshunt Implantation and Trabeculectomy for Glaucoma: A Systematic Review and Meta-Analysis

Adan Khan, Attam Khan
School of Medicine, Clinical Science Institute, University of Galway

Objectives

Trabeculectomy has long since been the gold standard of glaucoma surgery. The efficacy however can decrease over time and it can result in both short- and longer term complications. The Preserflo Microshunt has been extensively researched since its introduction on the market, particularly in recent years as more attention is being drawn to less invasive procedures. While both procedures have demonstrated to be effective in lowering intraocular pressure (IOP), it remains to be determined which is superior in its efficacy and safety profile. The aim of this systematic review is to compare the outcomes of the Preserflo Microshunt Implantation device with trabeculectomy for glaucoma in terms of efficacy and safety.

Methods

A systematic review and meta-analysis of the literature was conducted for studies comparing the Preserflo Microshunt with trabeculectomy in patients with glaucoma (final search date 21 June 2023). The primary outcome measures recorded as a measure of efficacy of the interventions were IOP at final follow up and IOP reduction (IOPR). Secondary outcomes recorded to measure efficacy were reduction in the number of glaucoma medications and reinterventions. To assess safety profile, the proportions of patients with post operative complications was recorded..

Results

Seven articles were included in this systematic review and meta-analysis. 1,353 eyes were included in this review (Preserflo: 812, trabeculectomy: 541). Post operative IOP (MD = 0.78 (0.66, 0.90), $p<0.001$) results are significantly lower for trabeculectomy than Preserflo. The IOPR (MD = -1.20 (-2.30, -0.09), $p=0.034$) results significantly favour trabeculectomy over Preserflo Microshunt. The reduction in the number of topical glaucoma medications (MD = -0.32 (-0.58, -0.07), $p= 0.014$) is significantly higher for trabeculectomy. There is no statistically significant difference in the levels of hypotony (RR= -0.05 (-0.47, 0.37), $p = 0.806$), choroidal effusion/detachment (RR= -0.12 (-0.42, 0.19), $p=0.444$), hyphaema (RR= 0.20 (-0.11, 0.51), $p=0.216$) and flat anterior chamber (RR=0.49 (-1.02, 0.03), $p=0.066$).

There is significantly more bleb related complications in the trabeculectomy groups than the Preserflo groups (RR=-0.63 (-1.01, -0.24), p=0.001). There were statistically more reinterventions required in the trabeculectomy groups than the Preserflo groups (RR -0.50 (-0.61, -0.38), p <0.001).

Conclusion

When compared to trabeculectomy, the Preserflo Microshunt is not as effective in lowering intraocular pressure, has a similar safety profile, and a lower reintervention rate.

Initial Safety and Efficacy of Combined iStent Inject and Phacoemulsification in Mild-Moderate POAG.

Saad Martini, Hiba Ali, Eamonn O'Connell

Cork University Hospital and South Infirmary Victoria University Hospital, Cork

Objectives

To evaluate the efficacy and safety of combined phacoemulsification with iStent inject in patients with mild – moderate primary open-angle glaucoma (POAG).

Methods

Retrospective analysis of patients diagnosed with POAG who underwent combined phacoemulsification and iStent inject.

A total of 16 eyes were included in this audit. The primary focus was on assessing changes in intraocular pressure (IOP) and the number of topical anti-glaucoma agents used pre-operatively compared to 18 weeks post-operatively.

Results

IOP Reduction: The combined phaco and iStent inject demonstrated a significant reduction in IOP from an average pre-operative level of 21.8 mmHg to an average of 13.68 mmHg at 18 weeks post-operatively.

Medication Reduction: The average number of anti-glaucoma agents used pre-operatively was 2.81, which decreased to an average of 2.375 at 18 weeks post-operatively.

Two patients encountered difficulties intraoperatively implanting the iStent into trabecular meshwork thus deemed unsuccessful. One patient had Trabeculectomy shortly after due to uncontrolled IOP (data excluded). Two patients underwent selective laser trabeculoplasty after 18 weeks to further lower IOP (data included).

Conclusion

Based on the data presented, combined phacoemulsification and iStent implant appears to be effective in reducing intraocular pressure and decreasing the number of anti-glaucoma agents required for POAG management. In alignment with benchmarks set by contemporary randomized controlled trial, a ≥20% reduction in intraocular pressure (IOP) is considered a clinically meaningful metric for therapeutic efficacy. Applying the above criterion to our cohort, 75% achieved a ≥20% reduction in IOP reinforcing the significant clinical benefits of the combined procedure.

Micropulse Cylodiode Laser in the Treatment of Refractory Glaucoma – The Irish Experience

Simon Neary, Shauna Quinn
Sligo University Hospital, Sligo

Objectives

Description of safety and efficacy of micropulse transscleral cyclophotocoagulation as a treatment option for refractory glaucoma. Micropulse transscleral cyclophotocoagulation is a less aggressive cycloenhancement technique. It is based on alternating photo-coagulation and rest intervals and allows a reduction in the energy dispersion to the structure surrounding the ciliary processes.

Methods

This is a retrospective study including 18 treatments on 11 eyes of 9 patients under our care for refractory glaucoma. The main indication for the procedure was increased intraocular pressure (IOP) refractory to maximum medical therapy in various types of glaucoma. The patients were treated using iridex Cyclo G6 laser with a Micropulse P3 infrared probe with a wavelength of 810.

Results
The glaucoma subtypes treated are as follows: adavanced primary open-angle glaucoma, advanced pseudoexfoliation glaucoma, advanced neovascular glaucoma, and advanced primarcy angle closure glaucoma. The mean pre-operative IOP was 25.

Conclusion
Micropulse transscleral cyclophotocoagulation appears to be a safe and well tolerated, however did not show treatment efficacy for IOP reduction in refractory glaucoma.

An Analysis of Posterior Orbital Tumours Managed at an Irish Ophthalmology Tertiary Referral Centre

Edward Ahern, Rizwana Khan
Royal Victoria Eye and Ear Hospital, Dublin

Objectives
To describe the aetiology, symptoms/signs and surgical management of posterior orbital tumours at the Royal Victoria Eye and Ear Hospital.

Methods
Retrospective chart review. The presenting signs and symptoms, clinical outcome, histopathology, tumour location and surgical technique were assessed.

Results
A total of 59 posterior orbital tumours were assessed from 1997 to 2022. 43 biopsies in total and 20 tumour excisions were performed. An extended lid crease incision or lateral orbitotomy were the most frequent techniques used in 42.3% (25) and 28.8% (17) of cases respectively. 47.5% (28) of tumours were malignant and 52.5% (31) of tumours were benign. The most common malignant tumours were lymphoproliferative tumours, 16.9% (10), followed by rhabdomyosarcoma, 6.7% (4). The most common benign tumours were vascular tumours, 16.9% (10), followed by idiopathic orbital inflammatory disease, 10.1% (6). Proptosis was the most common presenting symptom in 69.4% (41) of cases which resolved or improved in 78% (32) of affected patients post-operatively. Electromagnetic

(EM) image guided navigation was utilised in the surgery of the most recent cohort of tumours (29 patients). With the use of this technology all biopsies yielded a result and less lateral orbitotomies were performed. Prior to its implementation 5 patients required a second surgery for repeat biopsy following an initial negative biopsy or for tumour recurrence, 2 patients required further strabismus surgery and 1 patient irreversibly lost vision.

Conclusion

Posterior orbital tumours represent a rare entity however this study reiterates the importance of awareness of these conditions as we have demonstrated approximately half are malignant. Our study describes tumours operated on with the aid of electromagnetic image guided navigation and reveals the efficacy and safety of its implementation in the management of posterior orbital tumours.

A Review of Iris Claw Intra-Ocular Lens Implantation over Five Years

Luke O'Brien, Patrick Canning, David Keegan, Marc Guerin, Treasa Murphy, Paul Connell, Ian Dooley

Mater Misericordiae University Hospital, Dublin

Objectives

To assess the visual outcomes and rates of complications after iris claw intra-ocular lens (Artisan) implantation.

Methods

A retrospective analysis was conducted of aphakic eyes requiring secondary iris claw IOL (Artisan) implantation between 2016 and 2021.

Results

52 eyes, average age 64 years (range 19-92 years). 5 surgeons from one centre. The aetiology of aphakia was complicated phacoemulsification surgery in 21 eyes (40%), intraocular lens (IOL) subluxation/dislocation in 21 eyes (40%), Ectopia lentis in 6 eyes (12%), penetrating eye injury/trauma in 3 eyes (6%) and an opacified IOL in one eye (2%).

The nature of surgery involved pars plana vitrectomy (PPV) in 14 eyes (27%) and an anterior surgical approach in 38 eyes (73%). Primary Artisan implantation was carried out in 17 eyes (33%), whereas the Artisan lens was implanted during a secondary surgery in 35 eyes (67%). The Artisan lens was enclaved anteriorly to the iris in all eyes. There were no significant post-operative complications in 27 eyes (71%). Post-op corneal oedema/decompensation occurred in 4 eyes (8%), cystoid macular oedema (CMO) occurred in 11 eyes (21%), persistently raised intraocular pressure (IOP) occurred in 1 eyes (2%), haptic disenclavation occurred in 2 eyes (4%), uveitis in 2 eyes (4%), retinal detachment occurred in 3 eyes (6%) and endophthalmitis in 1 eye (2%). Mean best-corrected visual acuity (BCVA) pre-operatively was 1.0 LogMAR (6/60 Snellen). Mean BCVA at 1 month post-op was 0.5 LogMAR (6/18 Snellen), at 3 months was 0.7 LogMAR (6/30), at 6 months was 0.5 LogMAR (6/18) and at 1 year was 0.5 (6/18). At 1 year post-op, 36 eyes (%) achieved a BCVA of 6/12 or better, 25 of whom had a BCVA of 6/9 or better and 9 of these achieved a BCVA of 6/6. BCVA increased in 44 patients (85%) at 1 year compared to pre-operatively, it was unchanged in 5 patients (10%) and only 3 patients (6%) had worse BCVA at 1 year.

Conclusion

Iris claw IOL implantation is capable of delivering good visual outcomes with a relatively low complication rate in complex eyes..

Botulinum Toxin as a Treatment and a Diagnostic Tool in Adult Strabismus

Liam Bourke, Lisa McAnena
Beaumont Hospital, Dublin

Objectives

Strabismus, or misalignment of the eyes, can arise from various aetiologies, including neurological conditions. Sixth nerve palsies and other neurological causes pose distinct challenges in strabismus management. This paper examines the efficacy of botulinum toxin as a therapeutic and diagnostic intervention in such cases.

Beaumont Hospital is unique, from an ophthalmic perspective in Ireland, given the fact that it is the leading centre for neurosurgery in Ireland. There are rare and diverse presentations of neurological and neurosurgical conditions that present with varying ocular pathology. Patients are affected by rare, and often complex, strabismic conditions affecting their quality of life. Setting up a new service for botulinum toxin injections for adult strabismus can be a valuable addition to neuro-ophthalmological practice.

Methods

All patients having received botulinum toxin to an ocular muscle over the past 3 years were included. Data collection was via retrospective collection of data from healthcare records after identifying suitable patients from the theatre registry. No patients had previous strabismus surgery. The study was registered with the clinical audit committee in Beaumont Hospital.

Results

32 injections of botulinum toxin were given to 18 patients since the introduction of the service in 2021 (average of 1.8 injections per patient). The average age of the patient cohort was 45.4 years. The average angle of initial deviation was recorded (average 34 PD; range 14 – 50 PD) and then further measurements were taken at 4 weeks and 3 months for all patients (average angle at 3 months post treatment 17.9PD; range 0 – 40 PD). The dosage of botulinum toxin given to each muscle was recorded and ranged from 2.5iU – 7.5iU. The presence of fusion pre – and post – treatment was recorded.

Sixth nerve palsies accounted for 50% of the indications for treatment, none of which were attributed to a microvascular cause. Intracranial pathologies causing sixth nerve palsies included, pontine/basilar artery thrombosis, cavernoma, brainstem astrocytoma, acinic parotid cell tumour with cavernous sinus spread, carotid cavernous fistula (CCF), CPA meningioma, basilar artery rupture, and head trauma. A further subgroup analysis on outcomes was performed on the sixth nerve palsy patients.

Other causes were further sub-classified into neurologic or strabismic based on their aetiologies.

The treatment had no effect in three patients overall, and strabismic conditions fully resolved in 2 patients post treatment. The average duration of effect in the remaining patients was 3.7 months. Five of these patients went on to have strabismus surgery with beneficial outcomes. The only complication recorded was transient ptosis, occurring 7 times out of the 32 treatments (22%), the maximal duration of which was recorded as lasting 6 weeks.

Conclusion

Establishing a botulinum toxin injection service for adult strabismus is timely and aligns with modern ophthalmological practice trends. Overall, we have shown that botulinum toxin for managing strabismus resulting from sixth nerve palsies and other neurological conditions, has proven to be a promising and minimally invasive option with the correct patient selection.

Early intervention with botulinum toxin can mitigate adaptations resulting from chronic strabismus such as contractures and head postures. Botulinum toxin not only serves as a treatment option but also as a diagnostic tool to evaluate the potential for fusion or binocular single vision (BSV) in adults with strabismus. The presence or absence of fusion can influence the patient's decision and the ophthalmologist's approach to surgical intervention.

As well as assisting in assessment of fusional potential and trial alignment, the treatment can also serve to give a surgical response prediction and help provide clinicians with an insight into the risk of post-operative diplopia. Patients demonstrating binocular vision or diplopia after botulinum toxin treatment are more likely to sustain and benefit from binocular vision post-surgical correction. Their sensory system's response to temporary alignment acts as a surrogate marker for post-operative sensory adaptability.

Quality of Life Study to Evaluate the Incidence of Ocular Surface Disease in Patients Receiving Fluoropyrimidines Based Systemic Anti-Cancer Therapy

Hadia Paryani, Oscar Breathnach, Liam Grogan, Adrian Murphy, Patrick Morris, Susan Fitzsimon

Bon Secours Hospital, Dublin

Objectives

1. To assess the subjective incidence and severity of ocular toxicities with focus on dry eye disease in patients receiving fluoropyrimidines based systemic anti-cancer therapy (SACT).
2. Objectively assess the incidence and severity of ocular surface toxicity with clinical examination.
3. To investigate the impact of the toxicity on the quality of life (QOL) of these patients.
4. To identify areas of need for new guidelines in conjunction with ophthalmologists on screening and management of SACT-related ocular toxicities in the oncology day ward and indications for referral to ophthalmology.

Methods

Patients attending the oncology day ward who commenced fluoropyrimidines based SACT within the assessment period were screened regarding eligibility with the inclusion criteria and verbal consent obtained. They were requested to complete two validated questionnaires – National Eye Institute Visual Functioning Questionnaire (NEIVF-25) and the Ocular Surface Disease Index (OSDI) at baseline.

The patients were reassessed at the 2-3 month interval with the two validated questionnaires as before and an ophthalmological examination using slit lamp in conjunction with a Schirmer's test, using proxymetacaine hydrochloride as a topical ocular anaesthetic.

Results

As part of the pilot study, 10 patients who commenced fluoropyrimidines based SACT in the 6 weeks assessment period from mid-July to end of August were evaluated. Out of this cohort, five patients were excluded at screening and data from the five patients that were recruited is currently being evaluated. Full results from this pilot study will be available in time for the presentation.

Conclusion

We hope to expand from the results of the pilot study and continue to assess the subjective and objective incidence and severity of dry eye disease in patients receiving fluoropyrimidines based systemic anti-cancer therapy (SACT) with a larger cohort of patients, in order to develop new guidelines in conjunction with ophthalmologists on screening and management of SACT-related ocular toxicities in the oncology day ward and indications for referral to ophthalmology.

Ocular Adnexal Sarcoidosis

Pranav Gnanamoorthy, Bairbre Wynne, Colm Bergin, Susan Kennedy, Michéal O'Rourke

St James's Hospital, Dublin
Royal Victoria Eye and Ear Hospital, Dublin

Objectives

To report the clinical presentation, diagnosis, and management of the ocular adnexal manifestations in an immunocompromised patient with multi-system sarcoidosis.

Methods

This case report details the ophthalmic involvement following review of the patient's case notes. The multi-disciplinary input from dermatology, infections diseases and respiratory physicians are described. Clinical photographs and pathology sections were also reviewed.

Results

A 45 year old Nigerian female, who is HIV positive attended following referral from dermatology where she was receiving hydroxychloroquine for cutaneous manifestations of known multi-system sarcoid. She had a history of sarcoid uveitis treated previously and eyelid lesions at that time were thought to be meibomian cysts. Two years later, these had increased in size and number with multiple, discrete, firm masses now resulting in loss of lashes, trichiasis and disruption of the normal eyelid architecture. There was pain on blinking and lagophthalmos. Similar lesions on the tarsal conjunctiva were abrading the cornea. Biopsy confirmed granulomas consistent with the diagnosis of sarcoid and local steroid injection was effective in alleviating symptoms. Despite improvement on methotrexate and hydroxychloroquine elsewhere, her eyelid disease has relapsed and further local steroid treatment is necessary.

Conclusion

The involvement of the ocular adnexa in sarcoidosis is a recognised but rare manifestation. The timely and definitive diagnosis and management of these complications with individualised medical and surgical management is essential for symptomatic relief as well as preservation of ocular architecture.

Five Year Outcomes from Hydroxychloroquine (Plaquenil) Induced Retinopathy Screening in a Large Tertiary Hospital

Fionn O'Leary, Fiona Kearns, Caroline Byrne, Jaina Byrne
Beaumont Hospital, Dublin

Objectives

Hydroxychloroquine (Plaquenil) is a disease modifying anti-rheumatic drug that is frequently used in the control of a range of inflammatory conditions. Its use is known to cause retinopathy, typically perifoveal photoreceptor and RPE degeneration and irreversible central visual loss. The RCOphth recommend formal screening to detect preclinical Plaquenil induced retinopathy using SD-OCT, fundus autofluorescence or photography and 10:2 HVF. These guidelines recommend referral after five years of therapy, with annual monitoring thereafter whist on therapy. The Beaumont ophthalmology department is the only department in Ireland carrying out a formal screening programme for Plaquenil retinopathy.

Risk factors reported to increase the likelihood of retinopathy include dose (≥ 400mg), increasing length of drug use, coexistent macular pathology (primarily AMD), concurrent use of Tamoxifen (synergistic maculopathy effect), and reduced renal function (eGFR <60ml/min).

In one study the prevalence of retinopathy was 2% with <10 years of use, increasing to almost 20% after >20 years of use. In another, a 6.3% prevalence after >5 years of use was seen. Due to this variability, we sought to measure the rates of retinopathy and risk factors for retinopathy in our cohort and compare it to the guidelines and other large cohort studies.

Methods

727 patients were screened between the period March 2018 to August 2023. Excel version 2309 and Python version 3.12.0 were used for analysis. Retinopathy was confirmed by Dr. Fiona Kearns.

Results

The median age was 59 years. 44% had a diagnosis of rheumatoid arthritis, 24% SLE and 32% had a range of other inflammatory disorders. Only 1 (0.1%) patient was taking Tamoxifen concurrently. 22 (3%) patients had abnormal renal function. The median time from rheumatology referral to screening was 6.2 months. 56% were taking a dose of ≥400mg.

The mean duration of Plaquenil use was 5.4 years and the median 4 years. 55% were taking the drug for <5 years, 41.5% for 5-20 years, and 3.5% for >20 years. 226 (31%) patients were referred for an ophthalmology appointment secondary to incidental ocular findings detected during screening. 23 (3%) patients stopped the drug due to coexistent macular pathology. Only 3 (0.4%) patients had confirmed Plaquenil retinopathy.

Conclusion

The strength of this study includes the large patient number analysed and the use of real-world data in a tertiary hospital. Due to the low detection rate of risk factors and incidence of Plaquenil retinopathy we plan to increase the interval between screening to reduce the appointment burden on patients and workload in the department.

Single Centre Analysis on Binocular Esterman Visual Field Tests

Julia Zhu, Shauna Quinn

Sligo University Hospital, Sligo

Objectives

1. Establish patient demographics of patients who undergo binocular esterman visual field
2. Establish the percentage of patients who pass binocular esterman visual field
3. Establish any correlation or indicative results on their monocular Humphrey visual field that may suggest patient will fail binocular esterman visual field
4. Recommendation within the department to highlight at risk patients groups who should have binocular esterman visual field done.

Methods

Retrospective review of all binocular esterman visual field performed in Sligo University Hospital between August to October 2023 with patient's nearest 24-2 monocular Humphrey Visual Field and their clinical history.

Results

42 binocular esterman visual field was performed between August to October 2023. 27 patients (64.3%) had an underlying ocular pathology and 14 patients (33.3%) had a neurological diagnosis. 15 patients (35.7%) failed the esterman field test, 13 patients (31.0%) passed the esterman with full field and 14 patients passed the esterman field test with field defects. 6 patients (14.3%) had a previous field and 2 out of 6 patients (33.3%) had a different outcome compared to their previous test.

Conclusion

Visual field tests are currently the most common approach used to assess visual function in glaucoma patients to quantify the glaucomatous damage. Glaucoma is one of the leading causes for patients not permitted to drive based on NDLS legislation. Being able to drive is especially important to older patients to maintain their independence and social life however unsafe drivers are a significant risk to themselves and to others. There are varying practice within our local department as to when Esterman visual field are requested. In a busy glaucoma clinic where follow-up discussion is focused on intraocular pressure, compliance with the medication, side effects of treatment and progression of disease, the topic of driving is often overseen unless actively bought up by patient. Glaucoma also produces gradual field defect therefore topic of driving may not apply at initial consultation and then falsely assumed that it has been covered previously. As a result of this audit I've decided to do a survey for current practices and hope to draw up some recommendation within our department to highlight patients who should have binocular Esterman visual field done in more timely fashion.

Improving Patient Compliance with Medication and Glasses Bring-In Requirements at the Primary Eye Care Centre in CH07

Danyal Memon, Shane O'Regan, Margaret Morgan
Kilnanamagh Primary Care Centre, Dublin

Objectives

This audit's objective was to assess whether redesigning the patient invitation letter – circulated to all patients before their appointment – can reduce the incidence of patients forgetting to bring their medication list and prescription glasses to the eye clinic. By evaluating the redesigned leaflet's impact, we aim to improve patient compliance and streamline our administrative processes.

Methods

The ophthalmology clinical nurse specialist maintained a logbook over an 8 week period, recording the number of times she needed to contact a pharmacy or optometrist to search for missing or incomplete medication lists and glasses prescription. This logbook served as the baseline data for comparison.

We collaborated with the clinical team to revise the existing patient information leaflet, emphasising instructions about bringing medication lists and prescription glasses. Visual aids like images of glasses and medications were used to further clarify our message.

Upon completing the leaflet redesign, we piloted it with 20 patients in our waiting room, using a 5-point questionnaire and an open feedback section. Based on their feedback, we refined the leaflet before distributing it to all patients scheduled for cataract surgery assessments. Leaflets will be sent well in advance to give patients ample time to prepare.

We will allow 4 weeks for the new patient information leaflets to circulate. Then the ophthalmology clinical nurse specialist will collect the above metrics again over an 8 week period.

Results

The first cycle of data was collected over an 8 week period from 11/07/2023 to 12/09/2023. Over this timeframe, 117 (as of 05/09/23) new patients attended the department for the clinic for pre-operative cataract assessment. Of these, 28 patients (as of 05/09/23), had incorrect or missing medication information which required the clinical team to contact the local pharmacy and verify the correct information. This represents 24% of the total patients needing further medication verification.

The total number of calls made was 31 (some patients required multiple calls to different pharmacies). The time spent making these calls was recorded as 293 minutes in total.

Email communication with pharmacies was also used sparingly, when possible, to keep a written record of the important information exchanged. In total, six emails were sent between our team and pharmacies for the purpose of verifying medication information. The time spent writing and reading these emails was recorded as 50 minutes in total.

In total over the study's time period, 343 minutes were spent communicating with pharmacies by either telephone or email to verify medication information. This is equal to 76% of an entire working day shift of 450 minutes.

Results from the re-audit cycle after the intervention are awaiting completion of collection.

Conclusion

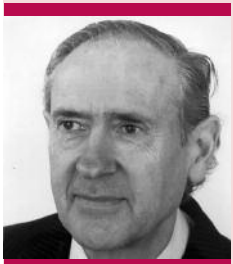
We anticipate this audit, and the resulting improvements will positively affect patient compliance and administrative efficiency at the Primary Eye Care Centre. The knowledge derived will further our commitment to delivering high-quality care.

Montgomery Lecture

About the Montgomery Lecture

The establishment of the Montgomery Lecture in 1916 was of great significance to the specialty of ophthalmology in Ireland. Dr Robert Montgomery served as an ophthalmic surgeon to St Mark's Hospital and the Royal Victoria Eye and Ear Hospital until his passing in 1912. The Montgomery Lecture was the first medical lecture to be founded in Trinity College Dublin. Robert Montgomery established the prize with £5000 pounds, a large sum but with few conditions bar insertion of the name "Mary Louisa Prentice" (his mother's name) in its title and that it should rotate between Trinity College Dublin and the Royal College of Surgeons in Ireland. Initially the lecture was given as a research lecture by early career ophthalmologists but since the second war the Annual Montgomery Lecture has been delivered by the leading figures in ophthalmology both from Ireland and abroad, and including neurologists, behavioural scientists and molecular ophthalmologists. Through this lectureship, the small Montgomery family have retained their influence in ophthalmology and the name of Robert Montgomery has become widely known, particularly in contemporary ophthalmology, alongside other ophthalmological luminaries such as Dr Sir Arthur Jacob and Dr Sir William Wilde.

John Blake Medal



John Blake

John Blake, MCh, FRCSI, FRCSEd, FRCS, FRCOphth 1932-2011

John Blake was born in Cork, studied medicine at University College Cork on a scholarship and trained in ophthalmology in Nottingham, London and Heidelberg. He was consultant at the Royal Victoria Eye & Ear Hospital and St Vincent's Hospital, Dublin.

Research into road traffic accidents and eye injury led him to lobbying government successfully to make seatbelt wearing compulsory and changed windscreens from toughened to laminated. These changes virtually eliminated perforating eye injuries from road traffic accidents.

The John Blake Medal was first awarded in 2019 for the best research paper at the annual conference of the Irish College of Ophthalmologists.

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