

65 patients had surgery before the pandemic (Group-A) and 28 since the pandemic (Group-B). The mean age was 34.9 and 39.1 years respectively. The mean pre-operative near-angle was 37.5 prism dioptres (PD) and distance-angle of 34.8PD for group-A. Group B was 39.3PD for near and 36.3PD for distance. 89.1% in group-A and 89.2% in group-B had suppression. Postoperative alignment within 15PD was achieved, after a combination of fixed and adjustable procedures, for 75.4% in group-A and 88.5% in group-B with predominant adjustable procedure. The mean 2-weeks post-operative alignment was -1PD for group-A and -1.3PD for group-B. Group-A had an average of 3.6 measurements, with 3.3 doctor consultant prior to surgery and group-B had 2 FTF orthoptics and 1 FTF doctor contact.

44.4% reduction in face-to-face orthoptics contact-time and 69.7% less consultant contact-time had not negatively affected the patient surgical outcome.

Strabismus surgery can be considered in selected cases with less FTF pre-operatively and improve cost-efficiency of our adult strabismus service with 'block-contract' status.

22 DIAGNOSTIC MONOCULAR OCCLUSION IN PATIENTS WITH BINOCULAR VISION

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To determine if angle of deviation changes significantly after diagnostic monocular occlusion (DMO) in patients with BSV (binocular single vision).

We retrospectively analysed data from 136 patients with esotropia and 110 with exotropia, divided in BSV and non-BSV. Near and distance angles were measured over 3 visits and then after 2 hours monocular occlusion. Data were analysed with t-test and linear regression.

Esotropes with BSV had significantly larger increases in deviation after DMO than non-BSV patients for near (5 PD vs 3 PD, 95%CI 3-7 PD, paired t-test $p=0.0318$) and for distance (6 PD vs 3 PD, 95%CI 4-8 PD, $p=0.005$). There was a significant correlation between the amount of change after occlusion and the initial angle for near ($p=0.006$) and for distance ($p=0.010$) in BSV patients only.

In exotropes, there was no significant difference after DMO between BSV and non-BSV patients for near ($p=0.09$) and distance ($p=0.532$). There was a significant correlation between initial near angle of deviation and change in deviation after DMO in BSV patients ($p=0.0009$) but not in the non-BSV group ($p=0.07$). Distance angle of deviation before DMO was significantly correlated to the amount of change in deviation after DMO for both BSV ($p=0.022$) and non BSV patients ($p=0.015$).

Our study shows that diagnostic monocular occlusion should be performed in all exotropes with initial angles of deviation of less than 30 PD. In esotropes, DMO is more likely to show significant increases in deviation in BSV patients, especially for smaller initial angles (less than 25 PD before DMO). These changes should be taken into account when planning surgery.

23 USING VISUAL DATA AND TELEOPHTHALMOLOGY IN PAEDIATRIC OPHTHALMOLOGY WITH AN APP-FREE, BROWSER-BASED, VISUAL DATA PLATFORM: ISLACARE

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Visual data is underutilised in ophthalmology particularly within paediatrics. Following the pandemic, virtual and remote clinics in the form of telephone and video consultations have increased but there are limitations within paediatric ophthalmology as synchronous telephone or video calls are time-consuming.

Using a platform known as ISLACARE, we are able to run remote photo and video clinics that has the capability to support asynchronous or synchronous consultations. With this software, parents and clinicians do not need to create logins or download apps thus increasing compliance with the technology.

In an audit of 101 consecutive cases, the following was found. Mean age: 6.67 years (0-17years). The top 4 categories used in were anterior segment (36%), Strabismus (24%), Orbit/Trauma (17%), and Oculoplastics (12%).

On the use of photographs to support consultations, it was felt that 91% reduced time to treatment/supported clinical decision making and 75% improved clinician to clinician communication. We have found a 30% increase in capacity in our remote teleophthalmology clinics by utilising a pre-consultation proforma. A particular improvement has been in post-operative strabismus cases where 90% of all our first appointment checks are now done remotely.

We would like to demonstrate the clinical flow of how we use ISLACARE for asynchronous consultations, remote monitoring, and visual data archiving.

BIPOSA Annual Meeting

Friday 06 October 2023, Royal Society of Medicine, London

09.45 Session II (S) (P)

Free papers

Moderators: Manoj Parulekar, Birmingham/Oxford and Rohit Jolly, London

24 PRIMARY OUTCOMES OF MANAGEMENT OF CONVERGENCE EXCESS ESOTROPIA AT MOORFIELDS EYE HOSPITAL

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Convergence excess ET (CXE) is an esotropia with binocular single vision (BSV) at distance fixation but esotropia on

accommodation for near fixation with near distance disparity (1). In this retrospective chart review our 1ry question: to evaluate the initial treatment to address CXE, whether this treatment successful or not, secondary question: to evaluate primary and final outcomes for control of near esotropia. Successful outcome defined as residual distance and near esotropia and near distance disparity of less than 10PD.

We included patients with CXE managed at Moorfields Eye Hospital from 2003 until 2022, defined as 'esotropia with BSV at distance but esotropia on accommodation for near with near distance disparity over 8-10 PD while the eye is corrected with the full cycloplegic refraction'. All age groups were included, amblyopic eyes were excluded.

668 patients were reviewed from 2005-2022, the mean age was 7.9years (+/- 6), first line treatment was bifocal glasses in 60%, which was successful in 83%, bi-medial recession was offered to 12.5%, only ¼ of which were improved, Botulinum toxin administered to 3%, bimedial posterior fixation sutures done in 1.5% which did not improve condition. Other lines included single vision glasses and Bangerder foil to relieve double vision. The final outcome was well controlled esophoria in 65% of cases. Binocular single vision achieved in 28%.

The management of convergence excess esotropia is still controversial, in our cohort most patients were managed with bifocals, the final motor and sensory outcomes were variable between patients. More than half of patients had satisfactory motor alignment. However, the sensory outcome was much less.

25 THE EFFICACY OF PRE-OPERATIVE MULTIDISCIPLINARY MEETINGS FOR SURGICAL MANAGEMENT OF STRABISMUS

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Informal discussion regarding surgical management plans between strabismus surgeons is common but this limits potentially valuable multi-disciplinary input and learning opportunities. We evaluate the effectiveness of virtual multidisciplinary meetings to provide a platform for discussion of pre-operative strabismus surgical cases.

Weekly virtual MS Teams meetings are held on Monday mornings for one hour, attended by the three paediatric consultants, paediatric fellow, all trainees on the paediatric firm and orthoptists. The meetings are recorded and available for reference to the content and for those not present.

Presentations for upcoming surgery cases are prepared and presented by the fellow, with discussion from participants regarding examination findings and surgical options. Cases are anonymised to allow multicentre collaboration. The agreed management plan is documented in the patient's medical notes, and outcomes of challenging cases are discussed.

The management plan is formalised during the MDT. Where required, additional tests are arranged. There are opportunities for all participants to constructively challenge decisions. Trainees of all levels are actively engaged by presenting, listening to the rationale behind surgical plans, with the opportunity to ask and respond to questions.

Patients are informed that their case has been presented in the MDT to obtain multiple opinions, which gives them

additional confidence. Orthoptists can see the impact of the measurements they provide, and how differing tests can change management plans.

This MDT has been a positive change to our surgical strabismus patient pathway. Knowledge and teamwork have been strengthened using this innovative virtual discussion method.

26 VIRTUAL STRABISMUS CLINIC: AN ALTERNATIVE MODEL OF CARE DURING THE COVID-19 PANDEMIC

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Addenbrooke's Hospital introduced a virtual strabismus clinic in March 2021 to manage patient care during the COVID-19 pandemic. This study aims to explore the feasibility and utility of this care model by evaluating its effectiveness in delivering patient care.

Clinic data from April 2021 to April 2022 were retrospectively analysed, including patient demographics, referral information and outcomes. All patients underwent an initial assessment by a specialist orthoptist, preceding virtual review by a consultant ophthalmologist.

The clinic saw 114 patients between the ages of 12 and 95 during this period, with an increasing number of patients seen per month. Within two months of the clinic's inception, wait times reduced by 59%: from 30.2 weeks to 12.5 weeks, remaining constant thereafter. Most referrals came from optometrists, with diplopia and identification of new or recurring strabismus being the most common complaint. Virtual review outcome varied significantly: 30.7% of patients were discharged, 16.7% listed for surgery, 34.2% received a repeat FTF review and a further 18.4% received a review virtually.

Following its inception, the virtual clinic was able to effectively accommodate patients despite capacity restraints. This was partly achieved through the effective utilisation of specialised orthoptists. Subsequent virtual review by a consultant ophthalmologist achieved positive patient outcomes.

Virtual clinics provide an opportunity to optimise patient care and maximise efficiency of clinical input. If applied appropriately, this model of patient care may reduce the NHS burden, improving wait times to facilitate faster intervention. Increasing consultant availability permits the treatment of a greater number of patients.

27 CHIASMAL MISROUTING IN INFANTILE NYSTAGMUS SYNDROME (INS): PHENOTYPES IN PATIENTS WITH MOLECULAR DIAGNOSES

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Chiasmal misrouting, once believed to be pathognomonic for albinism, has been reported in cases of INS, independent of melanin pathway disruption. The purpose of this study is to determine if there are clinical-electrophysiological parameters that correlate with particular genotypes in INS.