MPS type I, II, III, IV. While corneal clouding may be stabilised with early treatment with HSCT or surgically treated with a corneal transplant, there is currently no known effective treatment for retinopathy.

We conducted a prospective observational study of patients with MPS who underwent fundus examination, OPTOS imaging, OCT, and electroretinography.

76 patients with MPS were studied, comprised of 45 MPSI, 9 MPSII, 13 MPSIV and 9 MPSVI patients. The age range was 3- 58 years of age. OPTOS imaging was performed in 65 individuals, OCT in 61, and electrodiagnostic assessments in 37 patients. Ten patients (7 MPSI, 3 MPS II) had fundoscopic signs of retinopathy, of which 5 had abnormal ERGs. Twenty one patients (17 MPSI, 2 MPSII, 2 MPSVI) had abnormalities on ERG, of which 5 had concurrent fundoscopic evidence of retinopathy. The onset of retinopathy in MPS patients was observed over a broad age range, with initial detection occurring between 2 and 53 years of age.

Retinopathy can be diagnosed on examination, imaging, or ERG in MPS patients as young as 2 years of age. The development of novel medicines, such as gene therapy, have potential to stabilise or improve retinopathy in the future. Therefore, phenotypic and natural history information pertaining to retinopathy in MPS is extremely valuable.

16 HORNER SYNDROME: CAN IT BE FAMILIAL? CASE SERIES IN A FAMILY AND REVIEW OF LITERATURE

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Ophthalmic literature reveals vague and rare references to Horner syndrome on a hereditary basis. We present a case series of mother and son with Horner syndrome, which was confirmed pharmacologically. They noticed symptoms on the same side at a similar age and no serious pathology was found.

Retrospective case review of notes:

Case 1: An 11-year-old male presented with 6 week history of anisocoria, mild right ptosis, no heterochromia and no history of trauma or previous surgeries. The anisocoria was more noticeable in the dark, Horner syndrome was confirmed with apraclonidine test.

Case 2: Mother of case 1, 50-year-old female diagnosed with right Horner syndrome at the age of 14 in Austria. The presenting features were anisocoria, a lack of sweating on the right side of her face. Diagnosis was reconfirmed pharmacologically.

Case 1 was referred to paediatrics for a systemic examination which was normal. He was investigated with urinary catecholamines, MRI head and CT neck and thorax which were all normal. Case 2 was investigated in the past with a normal CT head.

Horner syndrome results in the interruption of the oculosympathetic pathway and can indicate serious pathology in the head, chest or neck. Our cases demonstrate that familial presentation could indicate an idiopathic aetiology as it is unlikely to have pathological Horner syndrome in two first degree relatives.

Our case series highlights the importance of eliciting a family history of Horner syndrome and examining the family members. Positive family history can reassure patients while awaiting results of investigations.

17 DEVELOPMENT OF A QUESTIONNAIRE TO STUDY FEAR AND ANXIETY FACTORS AFFECTING PATIENTS AND THEIR FAMILIES UNDERGOING STRABISMUS SURGERY

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Patients and their Families undergoing Strabismus Surgery. The aim of this study was to develop a questionnaire to identify perioperative fear and anxiety factors affecting pediatric strabismus surgery patients.

First, we reviewed the literature to determine precipitants of fears and anxieties experienced by pediatric patients. Subsequently, we developed a questionnaire for pediatric patients undergoing strabismus surgery. This was a two part questionnaire, consisting of a 16-piece section for patients and a 22-piece section for parents. Finally, we piloted this questionnaire to validate its clinical use.

Common anxiety factors for children include pain, minor clinical procedures requiring needles, separation from parents and engaging with medical professionals. We used this information to develop a two part questionnaire for patients and parents. The questionnaire elicited positive and negative aspects of the patient journey, corroborated fears reported in the literature, and identified anxiety inducing factors specific to strabismus patients.

There is a lack of evidence regarding fear and anxiety specific to pediatric ophthalmology surgeries. Strabismus surgery carries unique fear inducing factors. Interventions which may alleviate the stress of pediatric surgery, therefore greatly benefit patient experience and surgical outcomes, and should be considered in the care of pediatric patients. Patient educational material is known to provide a sense of control to patients, helping to alleviate such fear.

Evidenced by the literature and the pilot questionnaire, there still exists anxiety inducing factors in pediatric surgery. Investigation into patient fears regarding pediatric strabismus surgery is needed to better understand how clinical staff can support patients perioperatively.

18 ENGAGING WITH YOUNG PEOPLE TO IMPROVE RESEARCH, SERVICES AND WORKFORCE DEVELOPMENT: EYE-YPAG AND 'VISUALLY' WORKSHOPS

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Involving children and young people (CYP) in service and research design improves quality and accessibility. Running events in schools to invite CYP to volunteer and explore careers in the NHS may contribute to uptake of training posts and developing the NHS workforce.