136 ASSESSING THE ACCURACY OF THE SPOT VISION SCREENER FOR IDENTIFYING AMBLYOPIA RISK FACTORS IN PAEDIATRIC PATIENTS: A CLINIC-BASED AUDIT

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This clinic audit evaluated the SPOT Vision Screener's accuracy in detecting amblyopia risk factors in children needing referral for further assessment.

All patients (n=93) at a refraction clinic underwent both SPOT screening by an orthoptist and cycloplegic refraction by a paediatric optometrist. We compared results to assess sensitivity, specificity, and overall accuracy for key risk factors.

SPOT measurements correlated linearly with cycloplegic refraction but tended to underestimate hyperopia. Sensitivity for hyperopia >4D varied (right eye: 0.5, left eye: 0.36-0.58) while specificity remained high (>0.99). SPOT accurately detected astigmatism >1.75D in children over 4 (sensitivity: 0.85, specificity: 0.86).

Our findings align with previous validations. SPOT excels at identifying children without significant hyperopia but shows lower sensitivity for those with it, especially in the left eye. However, it effectively detects astigmatism.

The SPOT Vision Screener is a valuable tool in orthoptic clinics, helping prioritize children for further assessment and potentially streamlining referrals. Implementing SPOT screening in such clinics can also alleviate pressure on traditional refraction clinics.

137 EVALUATION OF THE POSTNATAL GROWTH AND RETINOPATHY OF PREMATURITY SCREENING CRITERIA (G-ROP) IN A SCOTTISH COHORT

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Retinopathy of prematurity (ROP) poses a significant risk of vision impairment in premature infants. Current screening guidelines rely on gestational age (<31 weeks) and birth weight (<1501g). Postnatal weight gain patterns have shown promise in predicting ROP development. This study evaluates a post-natal weight gain model; the Growth and ROP (G-ROP) in identifying infants treated for ROP in our population.

An 8-year retrospective cohort study was conducted on infants treated for ROP in a neonatal intensive care unit in Edinburgh, Scotland. Data from Jan 2016 to Jan 2024 was collected using 'Badger,' the electronic patient record system. The G-ROP 1 and G-ROP 2 criteria were applied: GA <28 weeks, BW <1051g, weight gain (WG) between age 10-19 days <120g, WG between 20-29 days <180g, WG between 30-39 days <170g, and the presence of any hydrocephalus. The G–ROP 2 criteria are the same, however all three WG thresholds are set at <180g.

Of 90 infants treated for ROP, 86 were included in the analysis after excluding incomplete data from 4 infants. Median birth weight was 740g, and median gestational age was 25 weeks. Sensitivity for detecting treated ROP was 98.8% for G-ROP 1 and 100% for G-ROP 2.

G-ROP 2 showed higher sensitivity than G-ROP 1 in identifying infants requiring treatment, potentially reducing the burden of ROP screening in our population.

These findings suggest that incorporating postnatal weight gain criteria into ROP screening protocols may improve the identification of at-risk infants, improving resource allocation and clinical management.

139 PAEDIATRIC ORBITAL DERMOID CYST MANAGEMENT: IS PREOPERATIVE IMAGING ALWAYS NECESSARY?

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We describe the role of diagnostic imaging in supporting the clinical diagnosis of paediatric orbital dermoid cysts

Retrospective review of clinical notes of children who underwent orbital dermoid excision from 2019 to 2024.

Eleven eyes of eleven children (72,7% female and 27,3% male) were identified. Mean age at the time of surgery was 4.7 years. In 100% of the cases the onset was noticed before the age of 18 months. The main symptom at presentation was a slowly progressive, painless subcutaneous mass. The localization of the orbital mass was supero-temporal along the zygomatic-frontal suture in all cases. All lesions were mobile and well circumscribed with no clinical evidence of intra-orbital or intra-cranial extension. All patients underwent diagnostic imaging with either Ultrasound (US - 45,45%) or MRI (45,45%). In one case of a growing cyst both diagnostic tools were carried out. None showed deep intra-orbital extension on imaging. All patients underwent uneventful total excision of lesion with no intraoperative evidence of intra-orbital or intracranial extension. Histology confirmed the diagnosis of Dermoid Cyst in all cases.

The suspicious diagnosis of orbital dermoid cyst is made clinically and confirmed by the pathology results after surgical excision biopsy. Imaging plays an important role in case of atypical presentation or evidence of deeper extension.

Preoperative diagnostic imaging may not be necessary in the management of Dermoid Cysts which do not have clinical evidence of intraorbital or intracranial extension. In cases of doubt, US should be the first choice of imaging as it is less invasive.

143 ASSESSMENT AND OUTCOMES OF SUSPECTED DISC SWELLING REFERRALS IN A TERTIARY PAEDIATRIC CENTRE

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This study evaluates assessments and outcomes of paediatric patients referred for suspected bilateral disc swelling at a tertiary hospital's ophthalmology department.

Retrospective analysis was conducted of patients who underwent lumbar puncture (LP) due to suspected disc swelling on ophthalmic assessment, between 1st January 2016 to