BIPOSA Annual Meeting

Wednesday 4 October 2023, Royal Society of Medicine, London

10.00 Session II (P)

Paediatric Free Paper

Moderators: Stephanie West, Southampton and Elizabeth O'Flynn Southampton

1 RETREATMENT FOR REACTIVATION OF ROP FOLLOWING INITIAL ANTI-VEGF INJECTIONS. A 5-YEAR RETROSPECTIVE STUDY

E Kollia, H Razzouk, S Biswas, J Ashworth. *Manchester Royal Eye Hospital, UK*

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To present the retreatment rates and the characteristics of ROP reactivation, as well as the differences between bevacizumab and ranibizumab injections in premature babies treated in our department over the past 5 years.

A retrospective analysis of babies with treated ROP was performed. 89 babies who required treatment from 2017 to 2022 were examined. We studied the severity of their disease with regards to their gestational age, treatment time and type and the need of further treatment. We also focused on the comparison of anti-VEGF agents for ROP.

22 out of 89 babies (14 boys and 8 girls) with aggressive posterior retinopathy of prematurity (APROP) and mean gestational age of 25+3w received initially anti-VEGF injections. 16 of those (11 boys and 5 girls) required retreatment with diode laser. 9 out of these 16 babies were treated with ranibizumab (Lucentis) and 7 with bevacizumab (Avastin). It is also of note that only 2 out of 67 babies who initially received laser treatment needed a complementary laser session.

The majority of babies with aggressive ROP who receive anti-VEGF agents will most probably require further laser treatment. At an equal level of retinal damage, it seems that their response to ranibizumab and bevacizumab is similar.

2 PATHWAYS TO DETECTION OF NON-INFECTIOUS CHILDHOOD UVEITIS IN THE UK: FINDINGS FROM THE UNICORN COHORT STUDY

S Kellett, H Petrushkin, J Ashworth, A Connor, E McLoone, C Schmoll, S Sharma, E Agorogiannis, J Williams, J Choi, A Injarie, N Puvanachandra, P Watts, A Shafi, E Millar, V Long, A Kumar, E Hughes, A Ritchie, J Gonzalez-Martin, A Pradeep, S Anwar, K Warrior, B Muthusamy, R Pilling, J Benzimra, A Reddy, K Bush, D Pharoah, K Falzon, U O'Colmain, R Knowles, V Tadic, A Dick, J Rahi, AL Solebo. *University College London, Institute of Child Health, UK*

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Introduction Prompt detection of childhood uveitis is key to minimising negative impact. From an internationally unique inception cohort, we report pathways to disease detection.

UNICORNS is a national childhood non-infectious uveitis study with longitudinal collection of a standardised clinical dataset and patient reported outcomes. Descriptive analysis of baseline characteristics are reported.

Amongst 150 recruited children (51% female, 31% non-white ethnicity) age at detection ranged from 2–18yrs (median 10). In 69%, uveitis was diagnosed following onset of symptoms: time from first symptoms to uveitis detection ranged from 0-739days (median 7days), with longer time to detection for those presenting initially to their general practitioner. Non symptomatic children were detected through JIA/other disease surveillance (16%), routine optometry review (5%) or child visual health screening (1%). Commonest underlying diagnoses at uveitis detection were JIA (17%), TINU (9%, higher than pre-pandemic reported UK disease frequency) and sarcoid (1%). 60% had no known systemic disease at uveitis detection. At disease detection, in at least one eye: 34% had structural complications (associated with greater time to detection – 17 days versus 4 days for uncomplicated presentation).

The larger relative proportions of children with non-JIA uveitis reported here increase the importance of improving awareness of childhood uveitis amongst the wider clinical communities. There is scope for improvement of pathways to detection. Forthcoming analysis on the full cohort (251 recruited to date across 33 hospitals and 4 nations) will provide nationally representative data on management and the determinants of visual and broader developmental/well-being outcomes.

3 FLYING BABY ANTERIOR SEGMENT OCT IN THE DIAGNOSIS OF ANTERIOR SEGMENT DYSGENESIS

H Jasim, O El-Haddad, S Amarakoon. *Bristol Eye Hospital, UK*

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A one day old baby was referred to Paediatric Ophthalmologists with unilateral right-sided dense corneal clouding, noted at the 24 hour postnatal review. This baby was born at 38 weeks gestation via forceps instrumentation and subsequent emergency caesarean Section.

The baby sustained a right sided periocular haematoma, lateral canthal superficial skin abrasion and subconjunctival haemorrhage. The obstetricians were concerned this baby had also sustained ocular trauma secondary to forceps use, such as a Descemet membrane tear (FIDMT).

We were able to perform anterior segment OCT with the Osiris MS39 AS-OCT (TM) at 2 days of age to assess the anterior segment anatomy and were able to establish an intact Descemet membrane, corneal stromal oedema and iridocorneal adhesions consistent with a diagnosis of anterior segment dysgenesis.

This is the first published report of using the flying baby technique for anterior segment OCT and allowed for rapid diagnosis of a developmental condition and exclusion of FIDMT. This avoided any delays in referral for further treatments, avoidance of potential medico-legal problems and most importantly, reassurance to the parents of the cause of corneal clouding.