INITIAL UK SERIES OF ENDOSCOPIC SUTURECTOMY WITH POST-OPERATIVE HELMET THERAPY FOR CRANIOSYNOSTOSIS: EARLY REPORT OF PERI-OPERATIVE EXPERIENCE

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10.1136/archdischild-2020-gosh.116

Objective Endoscopic suturectomy for craniosynostosis with helmet therapy (ESCH) has emerged as a successful treatment for craniosynostosis initially in North America. We present early outcomes from the first cohort of ESCH patients treated in the United Kingdom.

Methods Retrospective cohort study with review of electronic records.

Results 18 consecutive patients from the first procedure in the UK (May 2017) until January 2020 were identified. Our cohort consisted of 12 male and 6 female infants with craniosynostosis, with mean age of 4.6 months (range: 2.5–7.8

months) and weight of 6.8 kg (range 4.8–9.8 kg). The most commonly operated diagnosis was metopic synostosis (n=8) followed by unicoronal (n=7), sagittal (n=2) and multi-sutural (n=1) synostoses. Median length of skin incision was 3 cm (range 2–10 cm), with 15 patients having a single skin incision. 16/18 received no blood products with 2 requiring transfusion (1 donor exposure).

Mean operative time (including anaesthesia) was 96 mins (range 40–127 mins). The median length of hospital stay was 1 night with no patients staying more than 2 nights (n=3). Only 1 surgical complication was noted (a suture abscess requiring oral antibiotics). All patients are currently undergoing helmet orthosis with 100% compliance so far. No patients have required revisional surgery.

Conclusion Early peri-operative experience from the first UK cohort of ESCH patients suggests this is a safe and well tolerated technique with low morbidity, need for transfusion and short hospital stay. We hope the success of these results leads to developing discussions to facilitate funding of the helmet orthotic therapy as part of NHS highly specialised commissioning services at Great Ormond Street.