GOSH lies in caring for patients up to 18 years, adolescent expertise is limited, as it is nationally. Conversely, UCLH has a unique expertise in complex and specialist adolescent care, which could assist the transition planning for those children with the most complex needs. Based on our data, children with motility and functional-GI disorders commonly require a transition plan spanning multiple adult services and require the expertise of the adolescent MDT including psychology, social work, youth work, psychiatry, physiotherapy and occupational therapy. A commissioned joint transition service between GOSH and UCLH would facilitate best practice and provide an exemplar of clinical care for young people with complex health problems.

05 THE PREVALENCE OF COW'S MILK PROTEIN ALLERGY IN INFANTS WITH GASTROSCHISIS AND INTESTINAL FAILURE TYPE 2 AND 3

Kornilia Nikaki, Tracey Johnson, Haidee Norton, Gabis Chana, Amrita Garcha, Michelle Butcher, Wolfram Haller, Lisa Whyte, Theodor Wong, Sue Protheroe. *Birmingham Children's Hospital*

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Introduction The prevalence of cow's milk protein allergy (CMPA) in infants with gastroschisis has been reported as high as 45%, which is significantly higher than in the general infant population (0.5–1% of breast-fed babies and 5–7% in formula-fed babies). We aimed to define the prevalence of CMPA in infants with gastroschisis and type 2 or 3 intestinal failure (IF) and compare this to other groups of infants with type 2 or 3 IF.

Methods We obtained the pharmacy records of PN prescription lasting more than 28 days (i.e. IF type 2 and 3) for infants born between July 2015 and June 2020 in our tertiary intestinal rehabilitation centre. We only included infants presenting in the first year of life with type 2 or 3 IF related to a gastrointestinal disorder, other than enteropathies. We recorded the underlying cause of IF and the number of patients clinically diagnosed with CMPA. The diagnosis of CMPA was made by the clinical team on the basis of gastrointestinal symptoms, presence of macroscopic blood in the stools and lack of any other alternative diagnosis with symptom resolution after initiation of a hydrolysed or amino acid-based formula. We then obtained the feeding records of the patients and noted the number of infants on a hydrolysed and amino acid-based formula during their hospitalisation and at the latest dietetic follow up.

Results Out of 112 infants, 23 were diagnosed with gastroschisis and 29 with necrotising enterocolitis (NEC); 25/29 surgically managed. CMPA was diagnosed in 3/23 (13%) infants with gastroschisis, 5/25 (20%) of infants with surgically managed NEC and 5/60 (8%) of infants with other causes of IF type 2 and 3. Out of 23 patients with gastroschisis, only one was discharge home on PN with no concerns of CMPA. Out of the total 112 infants, 98 presented with IF type 2 and only 7 (7%) were also diagnosed with CMPA, while 14 were discharged on home PN with 6 (43%) also diagnosed with CMPA – table 1. An amino acid-based formula was trialled in 30/112 (27%) infants at some point during their hospitalisation while a hydrolysed formula was used in 54/112 (48%) infants with type 2 and 3 IF, in order to treat fat and sugar malabsorption, with 57% of children continuing to take a

Abstract 05 Table 1

	No of patients	CMPA	IF type 3	CMPA & IF type 3
Gastroschisis	23	3	1	0
Surgically managed NEC	25	5	6	2
Medically managed NEC	4	0	0	0
Intestinal atresia	18	3	3	3
Malrotation	10	1	2	1
Hirschprung's disease	3	1	1	0
Other	29	0	1	
Total	112	13	14	6

hydrolysed formula at the last recorded dietetic follow up. Three out of the 13 children with CMPA (2 with gastroschisis) have tolerated a dairy containing diet later on.

Conclusions The prevalence of CMPA in infants with gastroschisis and type 2 or 3 IF is much lower than that previously reported. CMPA is most prevalent in infants with surgically managed NEC and IF 2 or 3 while the prevalence of CMPA in IF type 3 in general is significantly higher. The use of hydrolysed formula for the management of malabsorption may be masking the diagnosis of CMPA in children with IF type 2.

06 DELIVERY OF A NATIONAL PAEDIATRIC GASTROENTEROLOGY, HEPATOLOGY AND NUTRITION VIRTUAL TEACHING PROGRAMME DURING THE COVID-19 PANDEMIC

¹Kwang Yang Lee, ²Neil McConnell, ³Rulla Al-Araji, ⁴Kavitha Jayaprakash, ⁵Robert Hegarty, ³Chayarani Kelgeri, ³Theodor Wong, ³Sue Protheroe. ¹Bristol Royal Hospital for Children; ²Royal Hospital for Sick Children, Glasgow; ³Birmingham Children's Hospital; ⁴Leeds Children's Hospital; ⁵King's College Hospital

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Introduction At the onset of the Covid-19 pandemic, hospital educational activities were halted in order to focus on health-care delivery and maintain social distancing. As a response to this disruption, BSPGHAN trainees set up the BSPGHAN Education Series, a twice-weekly virtual learning programme. The core objective of this programme was to deliver high quality paediatric gastroenterology, hepatology and nutrition (PGHAN) teaching during the pandemic.

In this study, we analysed the attendances and feedback received from the education series, in order to guide future directions.

Methods We reviewed the Zoom meeting attendance logs and Survey Monkey feedback forms for the BSPGHAN Education Series from April 2020 to December 2020.

Results In nine months, a total of 55 talks were delivered by 43 speakers. 23 (41.8%) sessions were gastroenterology-themed, 25 (45.4%) were hepatology-themed and 7 (12.7%) were nutrition-themed.

Thirteen paediatrics gastroenterology units (12 in the UK and 1 in the United States) and all 3 UK tertiary paediatric liver centres contributed to the talks. The highest contributing centres were Birmingham Children's Hospital (20 sessions), followed by King's College Hospital (9 sessions) and Leeds Children's Hospital (7 sessions).

Attendance logs and feedback forms were available for 53 sessions. A total of 2369 attendances were logged, with a median of 41 attendees per session (IQR 31–54). Attendees from 22 countries have participated in these sessions.

A total of 810 survey feedback forms were received, with a median of 14 forms received per session (IQR 10–18). 32% were filled in by PGHAN Grid trainees, 23% by consultants, 15% by clinical fellows. Allied Health Professionals (AHPs) comprised 6% of feedback returns. 54% of survey feedback respondents accessed the teaching sessions from home.

An average of 98% (95% CI 96.3–99.2) survey respondents strongly agreed/agreed that the sessions were relevant to their learning. 97% (95% CI 96–98.7) of survey respondents strongly agreed/agreed that the sessions delivered were of high quality.

Discussion The BSPGHAN series has been a positive initiative arising from the pandemic, providing access to high quality PGHAN education when local availability was paused, and giving a platform for the society internationally. Our report shows that the BSPGHAN Education Series has been well-received by attendees. The virtual sessions are more accessible compared to in-person teaching sessions, as evidenced by the high percentage of feedback respondents accessing the sessions from home.

Looking ahead, the BSPGHAN Education Group, set up in October 2020, will play a vital role in the further development of the Education Series. Sessions are recorded and made available to BSPGHAN members on the BSPGHAN website-further work may include creating online learning modules centred around these recordings. AHP involvement is an area for development- for 2021, we hope to include more topics that will be relevant to their interests.

Acknowledgments We thank all speakers for contributing to the teaching programme, and to all trainees who have devoted their time and efforts towards organising and running the teaching programme.

07

DUPILUMAB – REPORT OF RESOLUTION OF REFRACTORY EOSINOPHILIC OESOPHAGITIS ALONGSIDE SUCCESSFUL TREATMENT OF ATOPIC ECZEMA

Kathryn Allan, Aswatha Rabinathan, Jane Ravenscroft, Sabarinathan Loganathan. Nottingham University Hospitals NHS Trust

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Case We present a male teenager with a background of severe eczema since infancy, multiple food allergies and seasonal allergic rhinoconjunctivitis since early childhood. Systemic immunosuppressants including ciclosporin and methotrexate had failed to control his severe eczema. At the age of 15 years he developed dysphagia associated with difficulty swallowing food. He had no bolus obstruction or vomiting but did experience nausea. He was already on a PPI for suspected gastro-oesophageal reflux. An upper GI endoscopy with biopsies at multiple levels revealed a concentric ring appearance in the mid oesophagus. The histology showed >30 eosinophils per high power field with heavy spongiosis; both the macroscopic and microscopic findings being consistent with a diagnosis of eosinophilic oesophagitis (EoE). He was initially treated with oral viscous budesonide but showed no response after 3 months (either clinically or at reassessment endoscopy). He then

received an exclusive elemental diet for 10 weeks but still showed no resolution of his EoE.

A multidisciplinary decision with the dermatologists and gastroenterologists was made to stop his methotrexate and elemental diet and to treat with Dupilumab as a single agent, primarily to treat his severe eczema. After 12 months of treatment his eczema had almost completely resolved and his dysphagia was markedly improved. A repeat upper GI endoscopy showed 3–4 eosinophils per high power field, in keeping with adequately treated EoE.

Discussion EoE is a condition strongly associated with food allergies and atopy. Its diagnosis requires the presence of symptoms (including persistent dysphagia, food impaction or GORD that fails to respond to treatment), histological findings of >15 eosinophils per high power field in at least 1 biopsy and the exclusion of other causes. The incidence appears to be increasing with males in their 3rd and 4th decade being most commonly affected.

ESPGHAN have designed an algorithm for the recommended treatment for EoE in children and young people. They recommend the use of either topical steroids or an exclusion/elemental diet. If one of these proves ineffective they advise trying the other modality.

EoE is thought to be mediated primarily by food allergies triggering type 2 helper T-cell activity, resulting in release of IL 4, IL 5 and IL 13 cytokines. Dupilumab is a monoclonal antibody which inhibits IL4 and IL13 signalling and has been shown to be effective in control of atopic eczema. A recent randomized controlled trial (RCT) in adults has shown significant improvement in symptoms and endoscopic features of EoE with Dupilumab versus placebo. A phase 3 double-blind RCT evaluating efficacy and safety of Dupilumab vs placebo for EoE in adolescents and adults is ongoing.

Conclusion This is the first paediatric case report of Dupilumab being successfully used to treat both EoE and stubborn eczema which had failed to respond to other immunosuppressants. This was a very complex case due to the extensive atopy since infancy and the need to go beyond the current guidelines to treat his EoE.

08

IS ANTI-TISSUE TRANSGLUTAMINASE ANTIBODY TITRE GREATER THAN FIVE TIMES UPPER LIMIT OF NORMAL SUITABLE FOR NO-BIOPSY PATHWAY DIAGNOSIS OF COELIAC DISEASE?

¹Daniyal Raja, ²Dharamveer Basude, ³Siba Paul. ¹University of Exeter – Medical School; ²Bristol Royal Hospital for Children; ³Yeovil District Hospital

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Background The coeliac disease (CD) guidelines were updated by ESPGHAN in 2020 confirming that children (0–16yrs) with TGA-IgA titres $\geq 10\times$ upper limit of normal ($\geq 10\times$ ULN) and positive EMA result can safely be diagnosed with CD via the no-biopsy pathway (NBP). This practice is well adopted in the UK and has led to prompt diagnosis, reduction of the burden on endoscopy services and significant cost saving to the NHS. The COVID-19 pandemic has led to unprecedented challenges for the health service especially endoscopy services. We rarely observed non-diagnostic histopathology TGA-IgA $\geq 5\times$ ULN in our unit which receives referrals from whole of Southwest England.