immunological parameters in patients with atopy allow to suggest the significant role of allergic and neuropeptide inflammation of the esophageal mucosa in children with allergic diseases.

GP179 THE INCIDENCE OF INFlixIMAB INFUSIONS IN PAEDIATRIC IBD PATIENTS IN A TERTIARY PAEDIATRIC GASTROENTEROLOGY CENTRE

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Background Infliximab is a chimeric monoclonal antibody that targets Tumour Necrosis Factor- α in inflammatory bowel disease (IBD). Our Lady's Children Hospital Crumlin is the sole tertiary paediatric gastroenterology service in Ireland caring for the IBD paediatric population.

Our practice has been using the Infliximab originator, Remicade, for treatment. In our centre, for each patient commencing Infliximab treatment, we follow a specific protocol with regards to infusion rates, pre-medication and observation post infusion.

Objectives Our primary objective was to assess the incidence of adverse infusion reactions to Infliximab.

Methods We performed a retrospective analysis of patient charts who were on Infliximab infusions prior to the introduction of the biosimilar Infliximab infusion in October 2018 in our centre.

We reviewed a cohort of 100 patients who received Infliximab infusions during the time period 1st January 2016 to 30th September 2018. We assessed for any ADR ranging from mild requiring medical review to severe, requiring rescue adrenaline for anaphylaxis, as documented in patient notes and medication charts.

In view of practice changes to infusion rate times and evidence on exclusion of pre-medications, we aimed to investigate our current infusion adverse drug reactions (ADR) to compare going forward with the biosimilar switch.

Results In our cohort, 42% patients were female and 58% male. The majority 74% (n = 74) of patients were diagnosed with Crohn's disease, whilst 25% (n = 25) had a diagnosis of Ulcerative Colitis and 1% (n = 1) with IBD-undetermined. The average age of diagnosis was 11.8 years (Range = 3.4 - 16.4). 10% (n = 10) of patients were commenced on Infliximab at diagnosis as inpatients with the remaining 90% attending as outpatients to the day ward.

The overall incidence of Infliximab infusion reactions was 4% (n = 4). Significant severe non-anaphylactic infusion reaction, occurred in one patient only (1%). Of note, the patient did not receive adrenaline and was treated with IV hydrocortisone and IV chlorphenamine as per the protocol. 2% (n=2) were classed as moderate reactions with rash and facial flushing, both given IV hydrocortisone. Mild reaction occurred in 1% (n=1) with an episode of central chest pain that warranted medical review and the infusion re-started with a slower rate.

Conclusions Infliximab Infusion reactions are rare and found in a small quantity among paediatric IBD patients. Going forward with the biosimilar switch in our centre we can compare this data to assess its safety profile.

GP180 LEVEL OF VITAMINS D, PARATHORMONE, BONE TISSUE METABOLITES IN CHILDREN WITH COELIAC DISEASE AND BONE FRACTURES

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Objectives Study of vitamin D (VD) reserves and the level of markers of bone remodeling in children and adolescents with celiac disease (CD) depending on the presence or absence of fractures in history.

Methods 149 children with CD aged 1–17 y (8.8 ± 0.7 y), among which 65(43.6%) boys, 84(56.4%) girls. The diagnosis was established in accordance with the ESPGHAN criteria (1990,2012). Patients were divided into 2 groups. The 1 group 20(13.4%) children who had a history of fractures, the 2 group - 129(86.6%) children who had no fractures in the anamnesis. All patients were tested for serum calcidiol, osteocalcin(CSC), parathyroid hormone(PTH), C-terminal telopeptides(C-TTR).

Results The overall incidence of fractures in children with CD 13.4%, while in boys they occur 2.4 times more often 20.0% versus 8.3% in girls(p < 0.05). The average age of diagnosis of CD in patients without fractures 4.3 ± 0.3 y, in children with fractures 6.1 ± 1.0 y (p < 0.05). During the first year of adherence to GFD 3(23.1%) out of 13 fractures occurred. The average age of the fractures that occurred before the diagnosis was 5.9 ± 0.9 y; on the background of GFD 8.8 ± 0.9 y. Fractures of the upper and lower extremities were diagnosed in children in 15(75.0%) and 5(25.0%) cases. In patients with fractures calcidiol 12.4 ± 2.0 ng/ml, 1.9 times lower than in patients in the control group 23.0 ± 1.2 ng/ml(p < 0.01). VD deficiency in children with fractures was in 18 (90.0%) children, of which in 9 (45.0%) children it was severe (>10 ng/ml). Deficiency VD 1(5.0%) patient, optimal level only 1(5.0%) patient. In the comparison group, VD deficiency in 70(54.3%) children, of them severe 33(26.3%), VD deficiency 21 (16.3%) cases, and the optimal level - in 38 (29.4%) patients. The level of PTH in children with fractures was 47.0 ± 9.7 pg/ml, which is 1.6 times higher than in the comparison group - 30.2 ± 2.0 pg/ml (p < 0.05). The level of CSC in children with fractures was lower than in the comparison group — 27.0 ± 4.4 ng/ml and 53.9 ± 2.6 ng/ml (p < 0.001), while C-TTR values were higher - 132.1 ± 20.1 pg/ml and 96.8 ± 6.9 pg/ml, respectively (p < 0.05).

Conclusion CD patients at any age are at high risk for osteopenia and osteoporosis. A study of calcidiol indicates a low level concentration in children and adolescents with CD, while children with fractures have even lower rates.

GP181 COMPARING DIAGNOSTIC TESTS IN CHILDREN WITH COW'S MILK PROTEIN ALLERGY

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Introduction Food allergies are very common in the pediatric population; the most common among them is cow's milk

protein allergy (CMPA). The clinical manifestations of this entity are diverse, thus establishing the diagnosis can be challenging. The aim of our human research is to evaluate and compare commonly performed diagnostic tests regarding CMPA.

Methods Children with symptoms suggesting cow's milk protein allergy were included in this study (n=47). The investigation was performed at the Balassa János County Hospital in Szekszárd, Hungary. Stool samples were collected from the participating children at the time of the diagnosis, and after 3 months of elimination diet. On the first hospital visit, blood samples were drawn for lymphocyte transformation test (LTT), and a skin allergy test was also performed. On the first and third visit, parents were asked to fill in a questionnaire about the child's symptoms, which was constructed by the research team.

Stool samples were analysed with a fecal calprotectin (FC) rapid test. The lymphocyte transformation tests were conducted in an accredited university laboratory. Skin allergy testing was performed in the hospital setting.

Evaluation of the data and the questionnaires was performed with SPSS statistical software.

Results In the study population (n=47, mean age:7.36 years, 42.6% female), skin test was performed on 45 subjects; only 2 children (4.44%) showed positive test result for cow's milk. Positive LTT was observed in 8 children (17%), 4 subjects demonstrated questionable results.

Examining the entire research population, no significant difference in fecal calprotectin values was observed before (mean: 73.98 µg/g, SD: 71.12) and after (mean: 68.11 µg/g, SD: 74.04) the elimination diet (p=0.21). However, after dividing the participants into two subgroups according to the questionnaires, the following was observed: a significant decrease in FC values (p<0.001) was detected in children who strictly followed the diet (n=35) comparing the first (mean: 84.057 µg/g, SD: 79.48) and the second (mean: 41.114 µg/g, SD: 34.24) stool sample.

Conclusion According to our research data, skin allergy testing and LTT are not reliable diagnostic tools for establishing the diagnosis of CMPA. However, fecal calprotectin can be an objective parameter in confirming the diagnosis of allergic colitis in children with CMPA. Significant improvement in clinical symptoms can only be expected after a strictly followed elimination diet.

GP182 ANTHROPOMETRIC INDICATORS AND BODY COMPOSITION IN CHILDREN WITH CEREBRAL PALSY

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Aim and objectives of the study Nutritional disorders are frequent in children with cerebral palsy (CP). The main methods for assessing the nutritional status of children with CP are the accurate interpretation of anthropometric indicators and the measures of body composition. We have started a study, which aims to identify features of physical development and body composition in children with CP, depending on motor disabilities.

Patients and methods We assessed weight, height, BMI, tricipital skin fold thickness (TSFT), mid upper arm circumference

(MUAC) and body composition according to bioelectric impedance (BIA) in 34 children. The study included 39 patients (53.85% boys and 46.15% girls) with spastic forms of CP aged 2 to 17 years. Patients were classified according to the form of CP and the results of GMFCS scale. The study group included children receiving physical rehabilitation, living in families, and feeding orally. Height, weight, and BMI were assessed using program WHO Anthro and WHO AnthroPlus.

Results In our study population 10/39 subjects (25.65%) had GMFCS-I, 9/39 subjects (23.1%) had GMFCS-II, 4/39 subjects had GMFCS-III (10.25%), 14/39 subjects had GMFCS-IV (35.9%), 2 subjects had GMFCS-V (5.1%). The mean age was 9 y.o. Mean z-scores were -0.64 (SD 0.84) for weight, -1.17 (SD 0.98) for height, -1.17 (SD 1.1) for BMI, 0.54 (SD 0.62) for MUAC, and -0.29 (SD 0.74) for TSFT. The results of anthropometry revealed 24/39 children with nutritional status disorders: among children with GMFCS-I - only 2/10 children (20%), in children with GMFCS-II -6/9 children (74.35%), in children with GMFCS-III -3/4 children (75%), in children with GMFCS-IV - 11/14 children (78.6%) and both of 2 children with GMFCS-V (100%). Focusing on body composition evaluated by BIA, an additional 7 children with altered body composition were revealed: 3/10 - 2/9 - 0/4 -2/14 accordingly GMFCS levels I-II-III-IV. Mean phase angle (PA) value was 5.5 ± 0.39 with value <5.4 in 13/39 children (33.3%).

Conclusion Nutritional disorders were revealed in 24/39 subjects (61.5%) and 31/39 subjects (79.5%) with altered body composition in this sample of patients with CP. The frequency of detection of nutritional disorders in children with CP is higher in the group with more severe motor disability (GMFCS-IV> GMFCS-II> GMFCS-I). According to the results of BIA, decreased ACM level and PA value are the most sensitive indicators of nutritional status disorders.

GP183 ACHIEVING THE PANACEA IN DIAGNOSING PAEDIATRIC AUTOIMMUNE PANCREATITIS – A CASE STUDY

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Introduction Both in the Republic of Ireland and worldwide paediatric autoimmune pancreatitis (P-AIP) is very rare and its incidence is largely unknown. To date, a few anecdotal cases in Ireland have been diagnosed histopathologically following resection of a pancreatic mass.

Case Report We report the case of a 13yo boy admitted to the paediatric ward with a 4 day history of jaundice and pruritus, and a 2 day history of pale loose stools, dark urine, and vomiting. On examination he also had right upper quadrant abdominal tenderness. His liver profile showed biochemical signs of obstructive jaundice and cholestasis. He had a normal amylase and only mildly raised lipase. Total immunoglobulin level and IgG4 were normal.

Transabdominal ultrasound showed a distended gallbladder and a dilated CBD of 15 mm. MRCP showed a possible 3cm mass in the head of pancreas (HOP) with a normal pancreatic duct.

Our paediatric unit is within an adult hospital with subspecialist pancreatobiliary (PB) expertise including endoscopic ultrasound (EUS). EUS showed that the entire pancreas was expanded and no discrete mass was seen in the HOP. A EUS-