maximum quantities, the percentage of this quantity was calculated.

**Results** A total of 12 patients aged between one and 14 years were included. All children met adjusted parenteral recommenda-
dations for water-soluble vitamins except for vitamin C, where intake was suboptimal in one case. In all patients, vitamin A recommendations were exceeded, whereas vitamins D and K were suboptimal. Recommendations for zinc were clearly surpassed in all children, but this was below the maximum quan-
tity advised. Iodine was adequately supplied in 50%, copper in 67% and selenium in 75% of patients. No patient exceeded the maximum recommended intake of vitamin E and chromium. The maximum dose of manganese was exceeded in one patient.

**Conclusion** Licensed parenteral multivitamin/multitrace produ-
ucts in the UK provide fixed combinations of multiple micro-
nutrients and are dosed based on weight, although recommended intakes are mostly expressed as fixed daily quantities. Consequently, meeting the ESPHAN recommenda-
tions with these products is challenging and monitoring of serum concentrations of these nutrients is essential in this vul-
nerable patient population.

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**P38** PEDIATRIC INFLAMMATORY BOWEL DISEASE AND HIDRADENITIS SUPPURATIVE: A CHALLENGING ASSOCIATION?

Mark Mahon, Daniela Levanon. Jacobi Medical Center/Albert Einstein

**Introduction** Within Inflammatory Bowel Disease (IBD), peri-
neal lesions are a common extra-intestinal manifestation, yet it may mask other entities. Including several etiologies across a number of subspecialties, most of which are better appreciated in adulthood. This report focuses on an unusual dermatologi-
cal association with IBD, presenting at an atypical time in the disease course.

**Case Report** 11-year-old obese Hispanic female presented with the chief complaint of epistaxis and was noted to have painful lower extremity nodules consistent with erythema nodosum and gluteal cleft lesions. Review of systems revealed fatigue, anorexia and diarrhea for two months prior accom-
panied by a 6.8 kg weight loss over that period. On admis-
sion, she was febrile (38.3°C), tachycardic and hypotensive and mean corpuscular volume 70.3 fL, thrombocytopenia (55×10^3/L) and evidence of systemic inflammation with elevated CRP/ESR.

Stool studies were significant for fecal leukocytes and a CT revealed mural thickening with fat stranding; segmental colitis was confirmed on colonoscopy. At that time, a punch biopsy of the gluteal lesion revealed granulomatous dermatitis, pre-
sumed to be cutaneous Crohn’s Disease (CD). Treatment was initiated with Metronidazole and Methylprednisolone. Soon after the clinical course became complicated by the develop-
ment of a rectovaginal fistula. Induction and maintenance treatment were achieved with Infliximab and the patient was discharged with the diagnosis of CD with perineal involvement.

Multidisciplinary team monitoring over the following three years ensued before the patient reported progression of intertriginous lesions, this time to the axillae and infra-mam-
mary areas. Punch biopsy at the new lesion established the diagnosis of Hidradenitis Suppurativa (HS), with a pathological confirmation.

**Discussion** HS is a chronic inflammatory dermatological dis-
ease of the apocrine glands, characterized by recurrent and painful, deep-seated nodules, abscesses, sinus tracts and/or fis-
tulas. It affects various areas of the skin following the distri-
bution of apocrine glands. Prevalence is higher post-puberty, with smoking and obesity acting as risk factors. The associa-
tion with IBD, particularly CD is stronger in the severe phe-
notype and in pancolitis. The formal diagnosis is made on average one decade after the onset of IBD. Up to 25% of IBD patients experience extra-intestinal manifestations, peri-
neal pathology accounts for 50% of the cases. Yet, in the absence of extra-perineal intertriginous involvement, the pos-
sibility of HS may be less recognizable. Improved awareness to this association among Paediatricians and Paediatric Gas-
troenterologists is important as co-pathology may require treatment escalation to immunosuppressive agents or altera-
tions to monoclonal antibody regimen. More intensive treat-
ment is often required as disease remission is harder to achieve for HS than CD.

**Conclusion** HS, when associated with CD, typically occurs one decade after the initial IBD diagnosis. This case presents a much shorter interval between such diagnoses, and potentially a dual presentation. This has not been appreciaded in the literature to date and possibly suggests rare but earlier association when present. Analysis of a larger pediatric IBD cohort with HS will help clarify the pattern of association.

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**P39** PHENOTYPIC FLIP – RISK OF DEVELOPING CROHN’S DISEASE FOLLOWING RESTORATIVE PROCTOCOLECTOMY FOR ULCERATIVE COLITIS

Alison Campbell, Bruce Jaffray, Great North Children’s Hospital, Newcastle

**Introduction** 30% of Ulcerative Colitis (UC) patients require surgery. Restorative proctocolectomy (RPC) with ileal pouch-anal anastomosis (IPAA) is the preferred procedure. Published experience suggests up to 25% of patients subse-
quently manifest Crohn’s Disease (CD), and 50% of these require pouch excision. Despite long-term follow up, we had not previously identified Crohn’s conversion in our UC pouch patients.

**Aim** We analysed our UC cohort, for cases where the pouch was either excised or de-functioned. The aim of this study was to quantify the incidence of CD in this group.

**Methods** All children undergoing pouch surgery have had data regarding their surgery, pre-op management and disease status recorded contemporaneously. This database was inter-
rogated and further results from the histology database retrieved. In addition, pre-pouch surgery work up, specifi-
cally diagnosis and number of pre-op colonoscopies, was evaluated.

**Results** From 1999 to 2020, 84 children (mean age 13.5 yrs) have undergone surgery for UC with the intention of per-
foming RPC and IPAA. 3 were unable to be anastomosed at initial surgery; 1 subsequently underwent successful IPAA, 2 have end ileostomies.

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Frontline Gastroenterology 2021;12(Suppl 1):A1–A52
10 patients have had their pouch excised. The excised pouch did not demonstrate CD. 4 were excised for poor function, 3 for pelvic sepsis, 2 for faecal incontinence and 1 for bleeding. 3 of the 10 subsequently underwent successful revision pouch surgery. 4 other patients are currently diverted with an ileostomy (2 because of complications in pregnancy).

We have not identified CD developing in previous UC in our cohort. No children with a diagnosis of indeterminate colitis underwent RPC and IPAA. Children with the diagnosis of indeterminate colitis on initial histology had a subsequent diagnosis of UC on imaging or histology before surgery. The median number of pre-colectomy endoscopies performed was 3.

Summary and conclusion At median follow up of 10 years, we have not seen a conversion of diagnosis from UC to CD. This contrasts with published experience.

### Abstract P40 Table 1

<table>
<thead>
<tr>
<th>Variable</th>
<th>Black/African-American</th>
<th>Hispanic/Latino</th>
<th>Asian</th>
<th>Other</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subjects n (%)</td>
<td>6(18)</td>
<td>11(22)</td>
<td>10(20)</td>
<td>7(20)</td>
<td>NA</td>
</tr>
<tr>
<td>Age first atopy [Median (IQR)]</td>
<td>8 (2,14)</td>
<td>2 (0.33,6)</td>
<td>2.5 (1.5,4)</td>
<td>2 (0,5)</td>
<td>0.481</td>
</tr>
<tr>
<td>Age EoE dx [Median (IQR)]</td>
<td>13 (5,18)</td>
<td>4 (1.5,9)</td>
<td>5 (3,7)</td>
<td>3 (1,5,8)</td>
<td>0.07</td>
</tr>
<tr>
<td>Absolute Eosinophil Count [n (%;&gt;0.35/mL)]</td>
<td>3 (60)</td>
<td>4 (50)</td>
<td>7 (78)</td>
<td>5 (71)</td>
<td>0.785</td>
</tr>
<tr>
<td>Serum IgE [n (%;&gt;300)]</td>
<td>4 (80)</td>
<td>3 (27)</td>
<td>1 (10)</td>
<td>2 (29)</td>
<td>0.075</td>
</tr>
<tr>
<td>Midesophageal Eosinophilia [Mean (IQR)]</td>
<td>48 (20,80)</td>
<td>13 (3,20)</td>
<td>27 (1.5,41)</td>
<td>25 (3,41)</td>
<td>0.01</td>
</tr>
</tbody>
</table>

### Abstract P40 Table 2

<table>
<thead>
<tr>
<th>Environmental Allergen n (%)</th>
<th>Black/African-American</th>
<th>Hispanic/Latino</th>
<th>Asian</th>
<th>Other</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tree</td>
<td>3(100)</td>
<td>2 (28.5)</td>
<td>4 (44.4)</td>
<td>3(60)</td>
<td>0.255</td>
</tr>
<tr>
<td>Grass</td>
<td>1(50)</td>
<td>2(28.5)</td>
<td>0(0)</td>
<td>3(60)</td>
<td>0.069</td>
</tr>
<tr>
<td>Weeds</td>
<td>3(100)</td>
<td>3(43)</td>
<td>1(11)</td>
<td>3(60)</td>
<td>0.037</td>
</tr>
<tr>
<td>Dustmite</td>
<td>3(100)</td>
<td>4(57)</td>
<td>2(25)</td>
<td>1(20)</td>
<td>0.093</td>
</tr>
<tr>
<td>Cat</td>
<td>2(66)</td>
<td>5(71)</td>
<td>3(70.5)</td>
<td>1(20)</td>
<td>0.344</td>
</tr>
<tr>
<td>Dog</td>
<td>3(100)</td>
<td>6(86)</td>
<td>1(14)</td>
<td>1(20)</td>
<td>0.009</td>
</tr>
<tr>
<td>Cockroach</td>
<td>3(100)</td>
<td>4(57)</td>
<td>4(44)</td>
<td>2(40)</td>
<td>0.485</td>
</tr>
<tr>
<td>Mouse</td>
<td>1(33)</td>
<td>6(86)</td>
<td>2(25)</td>
<td>3(60)</td>
<td>0.132</td>
</tr>
<tr>
<td>Mold</td>
<td>2(100)</td>
<td>2(28.5)</td>
<td>0(0)</td>
<td>0(0)</td>
<td>0.006</td>
</tr>
</tbody>
</table>

### Discussion

**Background** Eosinophils are a known hallmark of the atopic march that encompasses allergic rhinitis, atopic dermatitis, allergies and asthma, with eosinophilic esophagitis (EoE) recently suggested as the ultimate component of atopic disease. Recent reports point to ethnic and racial disparities between Asian/Caucasian cohorts in eosinophilic disease, however, race-specific atopic patterns are yet to be determined.

**Aim** To determine racial differences in atopy profiles of pediatric patients diagnosed with EoE.

**Methods** Started as a quality improvement to be better serve a minority population, a retrospective chart review was performed on pediatric patients with a diagnosis of EoE seen over a decade at a Pediatric Gastroenterology clinic. The clinic serves a diverse minority population, located within a municipal hospital in The Bronx, NY. Inclusion criteria included patients with a diagnosis of EoE defined as symptoms consistent with EoE and confirmation on endoscopic biopsy (>15 eosinophils per high power field). Demographic data (age, race, sex) and atopic variables such as atopy history, serum IgE, absolute eosinophil count (AEC) and esophageal eosinophilia were noted. All variables were stratified according to race and statistical significance was evaluated using medians and proportions.

**Results** Thirty-four patients were included, and stratified by race. ‘Other’ included Mixed and Caucasian [table 1]. The subjects at time of EoE diagnosis aged 0.58 to 20 years and male to female ratio of 3:1. The median [IQR] age for initial clinical atopy diagnosis (Allergic Rhinitis, Atopic Dermatitis, Asthma or Allergy) was 2 [1.5, 5] years and for EoE diagnosis was 5 [3, 8] for all races combined. No significant difference existed between the racial cohorts for age at first atopy and EoE diagnosis [table 1]. Although, the interval between age at first atopic presentation to the age at EoE diagnosis was clinically shortest for Black/African-Americans, racial difference was not statistically significant, as majority were diagnosed within 12 months of symptom onset. Allergen sensitization was tested via either Skin Prick Testing or Serum IgE quantification. There was no racial difference in sensitization (positive test rates) to the 8 common food allergens (p=0.139), which are known triggers of EoE. Environmental allergy testing demonstrated Black/African Americans more likely to be sensitized to weeds, dog and mold than any other racial group [table 2]. No interracial difference was appreciated in terms of Absolute Eosinophil Count and Serum IgE [table 1]. Mid esophageal eosinophilia was more prominent in Black/African-American [table 1], while lower esophageal eosinophilia was most prominent for Hispanic/Latino’s subjects, demonstrating a median [IQR] of 40 [20,40], compared to any other race (p=0.004).

**Conclusion** Our findings suggest no racial differences in phenotypic presentation of EoE, except for higher allergy sensitization rates to certain environmental allergens in Black/African-Americans. No racial differences existed regarding laboratory evidence of serum eosinophilia or IgE levels. Histopathological evidence demonstrated racial differences with Black/African-American exhibiting higher mid-esophageal eosinophilia on histopathology. Further study, on a larger scale is required to confirm the complex interplay between race and EoE.