patients with CD¹ and the British Society of Gastroenterology guidelines state that DEXA should only be done after introduction of a gluten-free diet on the subgroups of patients in whom the risk of osteoporotic fracture is high². This was however followed up by a guidance document in 2010 stating that BMD assessment should always be performed at diagnosis. Meanwhile the American guidelines suggest testing for vitamin and micronutrient deficiencies³. The aims of this study were to determine, the prevalence of osteopenia and osteoporosis among patients who are newly diagnosed with CD, and any risk factors which would increase patients' risk of osteopenia and osteoporosis.

Methods We carried out a prospective cohort study, where newly diagnosed CD patients were recruited. DEXA scanning was done at diagnosis. Data with regards to smoking, BMD and histology was entered into a database and analysed using SPSS software package.

Results 137 patients with a histological diagnosis of CD were recruited. 76.6% were females. Mean age at diagnosis was 37.1 years (95% CI: ± 3.19 years). 21.9% (n = 30) of patients were osteoporotic and another 51.1% (n = 72) were osteopenic at diagnosis. A total of 14.9% (n = 17) had a previous history of fracture/s prior to diagnosis. Osteoporosis at the spine was significantly associated with the female gender (p = 0.04) and with an older age at diagnosis (50.3 years p = 0.01; 95% CI: ± 6.6 years). Patients with Marsh 3c disease at diagnosis were also more likely to have an abnormal BMD at the spine than patients with Marsh 3a or 3b (p = 0.04). Mean BMI between osteopenic (24.15 kg/m² 95% CI: ± 1.29) and osteoporotic (23.37 kg/m² 95% CI: ± 2.81) patients was slightly different but not statistically significant (p = 0.07).

Conclusion This data demonstrates a high rate of osteopenia and osteoporosis among CD patients at diagnosis. DEXA scanning should therefore be considered at diagnosis. This is of greater importance in female patients diagnosed at or above the age of 50 years and with Marsh 3c disease.

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Disclosure of Interest None Declared.

PTH-116 POINT OF CARE TESTING FOR ADULT COELIAC DISEASE: A POTENTIAL ROLE IN ENDOSCOPY

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Introduction Endoscopic markers of coeliac disease (CD) lack sensitivity; therefore many centres take routine duodenal biopsies or have a low threshold for biopsy, ensuring high detection rates. Newly available, point of care tests (POCT) provide rapid findings unlike conventional serological markers, potentially reducing the need for duodenal biopsies. This study evaluates a new POCT (Simtomax) which detects IgA and IgG deamidated gliadin peptide (DGP) with comparisons made to conventional serological markers and histology.

Methods Patients referred for a gastroscopy to a specialist CD list were prospectively recruited between March and November 2013. Patients were excluded if they were on a gluten free diet at the time of the test or if they had previously been diagnosed with seronegative villous atrophy. All patients had a duodenal biopsy as the gold standard for detecting CD. Concurrently serological testing for IgA tissue transglutaminase (TTG), endomysial antibody (EMA), total immunoglobulin A level and the DGP based rapid test was performed. Sensitivity, specificity, positive predictive (PPV) and negative predictive values (NPV) were calculated.

Results 354 patients met the inclusion criteria (45.8% male mean age 53.3 $\pm$ 18.5). Of these, 52 (14.7% 11.2 – 18.9) had newly diagnosed CD and 302 were controls with a normal duodenal biopsy. The sensitivity, specificity, PPV and NPV for the POCT were 94, 83, 49 and 99% respectively. This compares with results for TTG of 92, 88, 57, 99 and EMA of 88, 97, 85, and 98% respectively. In a second cohort, 43 patients with known CD for re-assessment were recruited (20.9% male, mean age 49.4 $\pm$ 16.6). 16 (37% 23 – 53) of these 16 patients (37%) had persistent villous atrophy despite a gluten free diet. POCT compared to histology showed sensitivity of 88% and specificity 41%. tTG showed sensitivity and specificity of 63 and 70% respectively and EMA 56 and 78% respectively. However agreement between histology and POCT was poor with concordance between results in only 60% (κ =0.274). tTG and EMA were marginally better with κ =0.321 and κ =0.345 respectively.

Conclusion This is the first study to prospectively demonstrate the value of a novel POCT for adult CD in endoscopy compared to the gold standard of histology. The sensitivity and specificity of the POCT is comparable to conventional serology. Simtomax could be used to appropriately identify patients requiring a duodenal biopsy within the endoscopic setting. This strategy may be cost effective by reducing the number of routine duodenal biopsies taken. Further work is required to clarify the role of POCT for the assessment of histological remission in patients with known CD.

Disclosure of Interest None Declared.

PTH-117 THYMIC STROMAL LYMPHOPOIETIN IS PRIMARILY REDUCED IN REFRACTORY COELIAC DISEASE DUODENAL MUCOSA

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Introduction Thymic stromal lymphopoietin (TSLP), a cytokine released by enterocytes and gut dendritic cells, promotes the development of Foxp3+ regulatory T cells and at the same time inhibits the development of pro-inflammatory T helper (Th)1 and Th17 cells. While mucosal TSLP expression is down-regulated in untreated coeliac disease (CD), its levels are unknown in refractory CD (RCD), in which the transformation of aberrant intraepithelial T cells predisposes to the emergence of enteropathy-associated T cell lymphoma. Therefore, we evaluated the