sequestrants were discontinued; loperamide was allowed as rescue therapy. Patients completed symptom diaries including stool frequency and Bristol Stool-form Scale (BSFS); a diarrhoea index ([stool frequency * mean BSFS] + loperamide use [weekly mg*3]) was calculated. Fasting serum FGF19 and total BA were measured before the first dose of OCA and after 2w treatment. Postprandial FGF19 and BA (6h area-under-curve, AUC) were determined after the first and last OCA dose. Data (expressed as medians) were analysed by Wilcoxon paired tests and Spearman correlation.

Results OCA increased fasting FGF19 from 133 to 237 pg/ml ($p = 0.007$) at 2w. Most patients had an increase > 60% in fasting FGF19 and a large OCA first dose/postprandial response. Fasting BA reduced from 1.5 to 0.9 μmol/l ($p = 0.13$) and postprandial BA AUC was lower after the 2 w OCA treatment (from 4.9 to 3.0 μmol/l, $p = 0.02$). Clinical improvements were found in all patients, including in stool frequency (23 to 14/wk, $p = 0.02$), BSFS (5.15 to 4.34, $p = 0.05$) and the diarrhoea index (113 to 76, $p = 0.005$). The reduction in BA AUC ($p = 0.02$) and the increase in fasting FGF19 ($p = 0.03$) both correlated with the reduction in stool frequency. Symptoms of abdominal pain, urgency and bloating also tended to be less on OCA treatment. OCA was well tolerated and no adverse events were reported of clinical concern.

Conclusion This study has shown for the first time that rational therapy with the FXR agonist OCA in PBAD is well tolerated and effective, stimulating serum FGF19 and reducing postprandial BA, resulting in clinical improvements in stool frequency and type. We propose larger, randomised, controlled trials of OCA. [EudraCT 2011–003777–28]

Disclosure of Interest None Declared.

PTU-194 THE DIAGNOSTIC UTILITY OF COELIAC SEROLOGY IN LYMPHOCYTIC DUODENOSIS

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Introduction Lymphocytic duodenosis (LD) is defined by normal villous architecture and intraepithelial lymphocytes (IELs) > 25 per 100 enterocytes. Such patients should not be diagnosed with coeliac disease (CD), solely by histology, as recent studies have suggested other associations with LD. Coeliac serology (tissue transglutaminase [TTG] and/or endomysial antibodies [EMA]) may play a useful role although their diagnostic value in such settings is unknown.

Aims To provide diagnostic outcomes in our expanding cohort of LD patients whilst also assessing the clinical utility of coeliac serology.

Methods Two hundred patients with LD were investigated for CD and other known associations of LD, by means of revisiting the patient's history and recent investigations including the initial coeliac serology, followed by a combination of gluten challenge, HLA typing, repeat duodenal biopsies, and exclusion of infection/inflammatory bowel disease.

In the absence of an alternative cause, a diagnosis of CD was based on the persistence or progression of LD on a gluten containing diet, the presence of HLA DQ2 or DQ8, and a clinical response to a gluten free diet.

Results 150 female, 50 male, mean age 49, SD 16, age range 17–83

An identifiable association was found in 70% of patients – with CD (20%), NSAIDs (17%) and H,pylori (16%) accounting for the majority. In 30% no cause was found, although reassuringly 2/3rd normalised their histology. The role of coeliac serology in LD for diagnosing CD is shown in table 1.

Conclusion As a single test, EMA has a greater diagnostic accuracy than TTG when assessing patients with LD.

As a combination test, only the presence of both a positive EMA and a raised TTG has a 100% predictive value for CD.

Abstract PTU-194 Table 1 The diagnostic utility of coeliac serology in lymphocytic duodenosis

LD coeliac serology test result (n 200)	PPV	NPV	Sensitivity	Specificity
If only TTG performed	54%	92%	70%	85%
If only EMA performed	95%	89%	50%	99%
Both TTG and EMA normal	6%	44%	20%	16%
TTG raised but EMA normal	33%	83%	30%	85%
TTG normal but EMA positive	80%	82%	10%	99%
Both TTG and EMA raised	100%	87%	40%	100%

Therefore, although coeliac serology is useful in LD, most cases still require further work-up for diagnostic confirmation.

Disclosure of Interest None Declared.

PTU-195 THE POPULATION PREVALENCE OF GLUTEN SENSITIVITY AND THE DIAGNOSTIC YIELD IN SECONDARY GASTROINTESTINAL CARE

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Introduction Healthcare professionals commonly encounter patients complaining of gluten sensitivity (GS) in the absence of serological and histological markers for coeliac disease (CD). This clinical entity has recently been termed non-coeliac gluten sensitivity (NCGS). The aim of this study was to determine the population prevalence of GS and to ascertain the diagnostic yield in those patients referred to secondary gastrointestinal (GI) care with gluten related symptoms.

Methods A population survey was conducted during March 2012 in Sheffield, UK, comprising basic demographic information, screening for GI conditions and enquiring for GS. We also analysed diagnostic outcomes in all patients referred by GPs to a dedicated secondary care clinic (2006–2012). The referral criteria were "GI symptoms attributed to gluten ingestion." Investigations included coeliac serology (EMA & TTG), immunoglobulins, HLA DQ2/DQ8 typing, duodenal biopsies +/- gluten challenge if indicated. A diagnosis of CD was based on a positive coeliac serology, HLA typing and histological changes according to the Marsh classification.

Results 1002 adults completed the population based survey (55% female, age range 16–93, mean age 39 yrs).

The prevalence of GS was 13% (129/1002, female 80% [$P < 0.0001$], age range 18–75, mean age 39yrs). The proportion of GS individuals who had seen a doctor for their symptoms was 35/129 (27%). In the absence of any known organic GI disease the prevalence of individuals fulfilling the ROME III criteria for IBS in the general population was 6%, with up to 80% being female ($p < 0.0001$). Patients with IBS were more likely to report GS than non-IBS patients (43% vs. 10%, $p < 0.0001$). GS individuals described a combination of intestinal & extra-intestinal symptoms (Table 1). Of the GS cohort, 29% (37/129) had tried a gluten free diet (GFD) – significant factors present in those trying a GFD include longer duration of symptoms (mean 96 vs. 54 months, $p = 0.013$), previous doctor consultations (OR 52), diarrhoea (OR 17) and abdominal pain (OR 10.3).

In secondary GI care 156 patients with GS were investigated (85% female, mean age 39yrs). A diagnosis of CD was reached in 10% with the remaining being classified as NCGS. All patients with CD were HLA positive compared to 46% of NCGS cases.