ORAL

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OC-001 THE LARGEST SYSTEMATIC AND PROSPECTIVE EVALUATION OF SERONEGATIVE VILLOUS ATROPHY

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I Aziz,* K E Evans, N R Lewis, M Peerally, M Imran, J Whiteley, D S Sanders *Department of Gastroenterology, Royal Hallamshire Hospital, Sheffield, UK*

Introduction Villous atrophy (VA) in the presence of positive coeliac serology (EMA and tTG) is highly predictive of coeliac disease (CD). However, diagnostic challenges may arise in those where VA is associated with a negative serology.

Aims To study the aetiology of seronegative VA.

Methods Patients presenting with seronegative VA (both EMA negative and tTG < 30) were prospectively recruited and investigated in a systematic and rigorous manner – initially, by means of revisiting the patient's history and histopathology, followed by immunoglobulins, HLA typing, repeat duodenal biopsies and coeliac serology, CLO test, small bowel aspirate, anti-enterocyte antibodies, HIV status, TB quantiferon, PCR for Whipple's disease, stool cultures +/– colonoscopy.

Results 91 patients, female 52 (57%), median age 55, age range (16–92).

Table 1 OC-001

Causes of seronegative VA (n 91)	No (%)
Coeliac disease*	41 (45)
No cause found**	23 (25)
Gastrointestinal infection	8 (9)
H. pylori	7 (8)
Drugs (NSAIDs/Aspirin)	3 (3.3)
Crohn's disease	3 (3.3)
Histology review = duodenitis	3 (3.3)
One case each of HIV, TB and common variable immunodeficiency	3 (3.3)

*One case of coeliac disease was an elderly man found to have enteropathy associated T-cell lymphoma (EATL).
**13/23 (57%) normalised their small bowel histology on repeat biopsies.

A history of autoimmune disorders, dermatitis herpitiformis or family history was significantly associated with a diagnosis of coeliac disease (p = 0.0006, exact fisher test).

Patients from an ethnic background (p = 0.01) or with a negative HLA typing for DQ2 or DQ8 (p < 0.0001) were significantly associated with a non-coeliac cause for their VA.

There was no statistical difference in age, gender, baseline bloods or clinical symptoms between the coeliac and non-coeliac group (p > 0.05).

Conclusion By taking a systematic approach, we were able to identify a cause for seronegative VA in up to 75% of cases. Coeliac disease accounted for almost half of all the cases investigated. Despite growing interest in drugs and *H. pylori* causing small bowel enteropathy, there are minimal data to suggest an association with VA.

In those where a cause for VA was not found, 57% (13/23) subsequently normalised their small bowel histology on repeat biopsies – we speculate a transient post infective phenomena in this group. Of those with persisting VA of unknown cause (n 10), the outcome is not yet clear, and they remain under active follow-up.

This is the largest study investigating patients with seronegative VA – based on these data; we would suggest caution in commencing a gluten-free diet in this group of patients without further investigation and supportive evidence for coeliac disease.

Competing interests None.

Keywords coeliac disease, coeliac serology, villous atrophy.