Prospective Study of the Prevalence of Exocrine Pancreatic Insufficiency in Adult Coeliac Disease using Faecal Elastase-1.

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Introduction:

The most common cause of continuing symptoms in patients with coeliac disease (CD) is continued ingestion of gluten.

However, a proportion of patients with CD still have gastrointestinal symptoms, particularly diarrhoea, even with strict adherence to a gluten free diet (GFD).

This should prompt assessment for other associated gastrointestinal diseases.

CD has classically been associated with exocrine pancreatic insufficiency and is reported in the literature. There has not been a large cross sectional study in a group of adult coeliac patients.

Faecal elastase-1 (Fel-1) has been shown to be highly sensitive and specific particularly for moderate and severe exocrine pancreatic insufficiency. Fel-1 has not been evaluated in CD patients.

Aims:

To assess the prevalence of exocrine pancreatic insufficiency in patients with CD with particular reference to those with persistent gastrointestinal symptoms

To assess whether there is symptomatic benefit in patients with CD who have exocrine pancreatic insufficiency identified

Patients and methods:

We recruited patients from the specialist coeliac clinic in Sheffield
Patients were assessed for the following factors:

a) Duration of CD
b) Compliance to GFD (based on antibody status)
c) Presence of continued GI symptoms

All patients were invited to produce a stool sample that was assayed for Fel-1 using ELISA. Those patients with Fel-1<200 with significant diarrhoea were offered pancreatic supplementation in the form of Creon
Baseline weight and stool frequency and consistency was noted

Patients were sub grouped as shown:

1) New CD (<6 months)
2) Asymptomatic (On GFD)
3) Ongoing GI symptoms (On GFD)

Results:

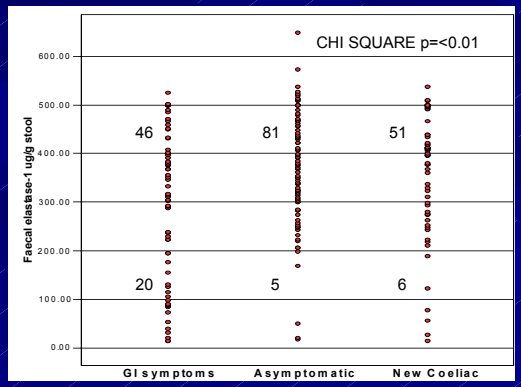
209 patients were recruited into the study (55 males, median age 50.8 years).
31 patients had a Fel-1<200 (14.8%).

57 new diagnosis
86 asymptomatic
66 ongoing GI symptoms (diarrhoea)

Demographics

	N	M:F	Median age (range)
New CD	57	1:4.3	44 (20-91)
Asymptomatic	86	1:3.5	51 (18-89)
Ongoing symptoms	66	1:3.5	55 (18-72)

Faecal Elastase-1 values



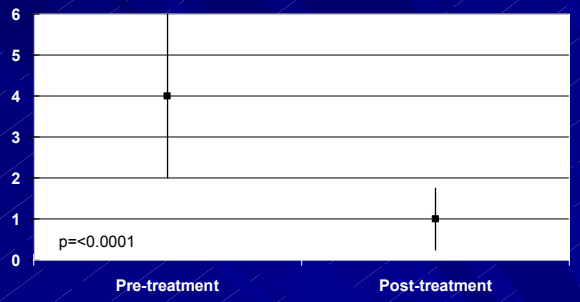
Follow up 12-18 months

20 patients with Fel-1 <200 and significant GI symptoms received Creon®
18 found significant clinical improvement in stool frequency and 19/20 reduced urgency

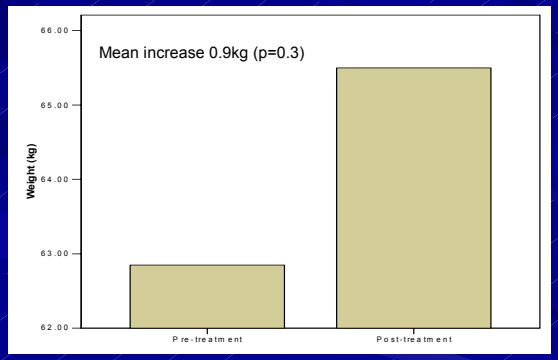
1 found no change in symptoms
1 had spontaneous resolution of symptoms

Compliance was similar in symptomatic and asymptomatic groups
17/66 with positive antibodies in ongoing symptoms
18/86 with positive antibodies in asymptomatic group (All normal Fel-1)

Number of stools per day



Change in weight



Conclusions:

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