

The prevalence of irritable bowel syndrome-type symptoms in pediatric inflammatory bowel disease and the relationship with biochemical markers of disease activity

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Background

- The prevalence of IBS-type symptoms in adults with quiescent inflammatory bowel disease (IBD) is 35%¹
- It is thought these symptoms may reflect ongoing inflammation
- Pediatric data are scarce

Aim

- To investigate the prevalence of IBS in children with IBD
- To investigate the relation of these symptoms with biochemical markers of inflammation

Methods

Cross-sectional study with all children (4-18 years) with a diagnosis of IBD attending our outpatient pediatric gastroenterology clinics (March 2014 - June 2015)

- Clinical disease activity (PUCAI, aPCDAI)
- Fecal calprotectin, C-reactive protein
- Physician-administered Rome III questionnaire for IBS criteria*

Clinical remission: PUCAI / aPCDAI <10

Biochemical remission: Fecal calprotectin <250 ug/g

*Abdominal pain or discomfort ≥1 day/week in the last 2 months associated with two or more of the following at least 25% of the time: Improvement with defecation; associated with change in stool frequency; associated with change in stool form.

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Patients in clinical remission

	IBS + (n=8)	IBS - (n=117)
Age (mean, SD)	11.2 (4.7)	14.8 (2.4)
Females (n, %)	3 (38%)	62 (53%)
Crohn's disease (n, %)	4 (50%)	84 (72%)
Months since Dx (Mnd, IQR)	22 (7 - 72)	27 (10 - 42)
Current anti-inflam. Tx (n, %)	5 (63%)	112 (96%)
Previous IBD surgery(n, %)	0 (0%)	14 (12%)

*p < 0.05

IBS: clinical remission* (95% CI)

CD + UC	CD	UC
6.4% (2.5 – 11.1%)	4.5% (1.1 – 9.2%)	10.8% (2.3 – 21.0%)

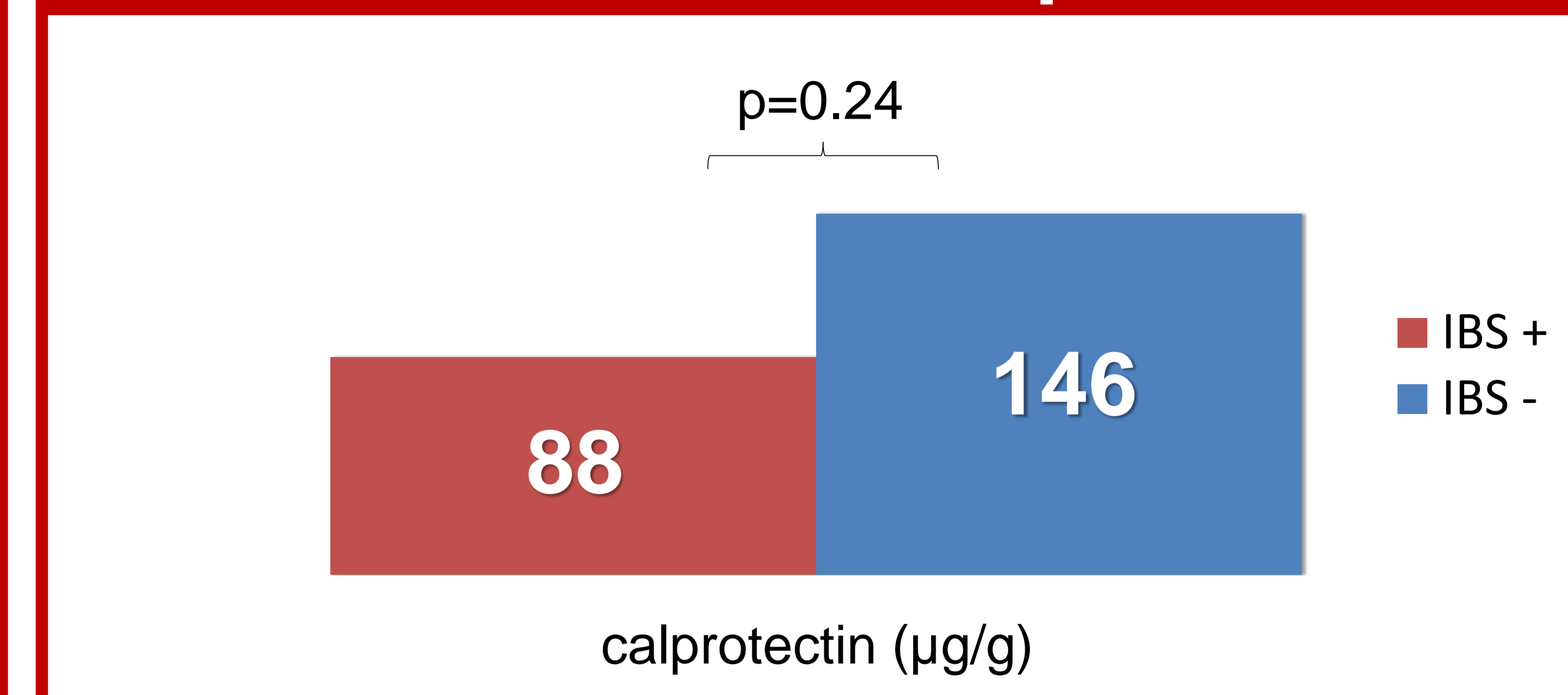
IBS subtypes



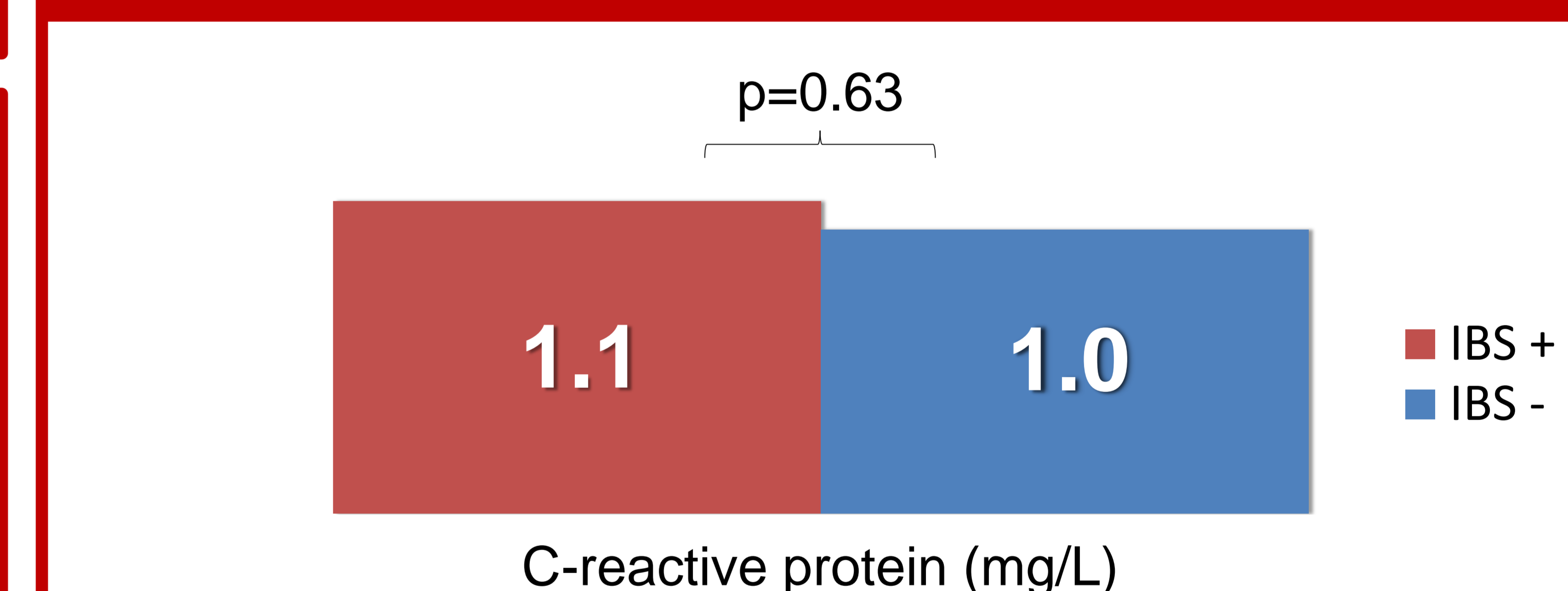
IBS: biochemical remission* (95% CI)

CD+UC	CD	UC
16.1% (7.6 - 25.8%)	16.7% (6.5 - 29.9%)	10.8% (2.3 - 23.1%)

IBS + / - : Fecal calprotectin



IBS + / - : CRP



Conclusion

- The prevalence of IBS-type symptoms in children with IBD is much lower than in adults
- IBS-type symptoms are not related to biochemical markers of disease activity

Abbreviations: aPCDAI: abbreviated Pediatric Crohn's Disease Activity Index; CD: Crohn's disease; CRP: C-reactive protein; FC: Fecal calprotectin; IBD: inflammatory bowel disease; IBS: irritable bowel syndrome; PUCAI: Pediatric Ulcerative Colitis Activity Index; UC: ulcerative colitis

1. Halpin SJ, Ford AC. Prevalence of symptoms meeting criteria for irritable bowel syndrome in inflammatory bowel disease: systematic review and meta-analysis. *Am J Gastroenterol* 2012; 107: 1474–82