

## O13 IMMUNOHISTOCHEMICAL MARKERS OF SMALL BOWEL INFLAMMATION IN CHILDREN WITH ULCERATIVE COLITIS

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**Background:** We recently demonstrated that abnormal cellobiose/mannitol small intestinal permeability study is a predictive marker of early relapse in children with ulcerative colitis (UC).  
**Aim:** The purpose of this study was to evaluate in the jejunum of children with UC, by immunohistochemistry, subtle inflammatory changes, even in presence of normal histopathology.

**Methods:** From February 2008 to March 2009, 20 pediatric patients (M: F = 8: 12, mean age: 126 months, age range: 30-191 months) with new diagnosis of UC were evaluated. All patients underwent upper GI endoscopy and duodenal cryostat sections were stained for CD3+ and  $\gamma\delta$  + T cells and CD25+ mononuclear cells. Twenty-four children with functional dyspepsia, who underwent upper GI endoscopy, represented the control group.

**Results:** UC patients and controls did not show any jejunal endoscopic lesions; in 3/20 (15%) UC children the histological evidence of mild inflammation of jejunum was noted. As a group UC children presented a significant higher density of lamina propria CD25 + cells compared to controls (mean  $\pm$  SD: 9. /mm<sup>2</sup>  $\pm$  7 vs 3  $\pm$  1. ; p< 0. 001). In particular 13/20 (65%) showed an exceedingly high number. No significant differences were noted as regard CD3+ and  $\gamma\delta$  + T cells between study population and control group.

**Conclusion:** The majority of UC children present inflammatory signs at level of the jejunal mucosa even in the absence of gross histopathological changes. The extent of upper GI tract involvement is wider than previously thought.