

## Comparison of Magnetic Resonance Enterography Findings and Clinical Index of the Disease Activity Score in Crohn's Disease

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### Introduction

Crohn's disease (CD) is a chronic inflammatory disease of the gastrointestinal tract. It usually affects younger people, with the peak of illness between the age of 15 and 25. MR enterography (MRE) is a proven and reliable modality in the evaluation of the lesion extent within this group of patients.

### Aim

The purpose of the study was to compare MRE findings with clinical index of the disease activity - CDAI score, in order to verify the utility of MRE in the precise assessment of disease severity.

### Materials/Methods

46 consecutive patients underwent MRE on a 1.5T scanner according to a standard protocol. All studies were performed in a prone position, using mannitol as a positive oral contrast agent. CDAI score was assessed prior to examination by a specialist in the field of gastroenterology.

### Results

32 patients had multifocal lesions, with the majority (N=23) localized within both small and large intestine. 14 patients presented with unilocular lesions, 14 patients had a history of previous bowel resection due to disease complications. Penetrating disease was diagnosed in 15 subjects. The results indicate a good correlation between MRE and CDAI assessment in groups of patients with moderate and severe clinical symptoms. However, there is a significant discrepancy in the group of patients with mild disease activity according to CDAI. Out of 23 patients with clinically mild symptoms, 1 exhibited MRE characteristics of severe, 9 of moderate, 7 of mild inflammatory intestinal lesions and 6 of no active lesions.

### Conclusion

There is good accordance between MRE and clinical findings in patients with prominent disease symptoms, indicating that enterography might be a promising modality in terms of lesion activity grading. Nonetheless, there exist a significant group of patients with mild disease symptoms, in whom MRE tends to show full spectrum of disease severity.

**Keywords:** Crohn's disease, inflammatory bowel disease, MRE