

4th International Conference on Gastroenterology

July 20-22, 2015 Orlando, USA

MR enterography in diagnosis of postoperative and post irradiation intestinal Adhesions

Nenad Spasic

Institute for Oncology and Radiology, Serbia

Introduction: Patients who have undergone laparotomy or Irradiation post surgical intervention at least once reveal adhesions in over 90% of cases. Adhesions produce symptoms only in a minority of cases, but adhesions are responsible for more than half of cases is small bowel obstruction

Aim: To evaluate MR enterography as a diagnostic method for detecting adhesions and compare it with a routine MR examination with DWI as a proven tool for detecting adhesions

Material and methods: In 17 patients who had post laparotomy intermittent sub occlusions and in 12 patients who had Laparotomy and irradiation therapy after routine MR examination with DWI imaging, MR enterography was performed in 11 patients where intestinal adhesions could not be proven and in MR enterography in 8 of them adhesions were well visible. For examination was used (Siemens, Avanto, 1, 5 T machine with body coil) and 2, 5% mannitol as oral contrast medium was used.

Conclusion: MR enterography is superior to routine abdominal imaging even with DWI in the diagnosis of intestinal adhesions.

npsasic4@gmail.com

Autoimmune enteric neuropathy and functional gastrointestinal disorders

Jackie D Wood

The Ohio State University, USA

Functional gastrointestinal disorders are those in which no abnormal metabolic or physical processes, which can account for the symptoms, can be identified. Nevertheless, “functional” has often been shorthand for “we don’t know what is wrong”. The Irritable Bowel Syndrome (IBS) is an example of a significant functional disorder, which affects 10-20 percent of the population worldwide. Predominant symptoms of IBS are abnormal defecation associated with abdominal pain, both of which may be exacerbated by psychogenic stress. The abnormal defecation in IBS is predominately diarrhea or constipation. A subgroup of IBS patients alternates from one to the other over time. In the absence of abdominal pain, persistent diarrheal states or states of constipation or non-ulcer dyspepsia may also fall into the category of a functional disorder. Urgency to stool and incontinence for fecal liquid are often coincident with the diarrheal state. Patients with constipation-predominant IBS, and oftentimes functional constipation, often report bloating, straining and sensations of incomplete fecal evacuation. Significant subpopulations of IBS patients and functional dyspeptic patients are hypersensitive to distension of the recto-sigmoid region of the large bowel and the hypersensitivity can extend to other regions of the digestive tract (e.g., esophagus). Results of a study that was done to determine the number of patients in a 78-patient IBS subset in which symptoms were associated with circulating anti-enteric neuronal antibodies compared with 22 non-IBS controls will be discussed. Serum, in this study, was collected from patients that had a Rome II symptom-based diagnosis of IBS and controls at the University of North Carolina Functional Gastrointestinal Diseases Center. Assay procedures, done at the Ohio State University were immunohistochemical localization of antibody binding to enteric neurons and human protein microarray assay for antigens recognized by antibodies in the sera. Eighty-seven percent of IBS sera were found to contain anti-enteric neuronal antibodies. This is an exceptionally high incidence that was unexpected. Antibody immunostaining appeared in the nucleus and cytoplasm of neurons in the enteric nervous system. Protein microarray analysis detected antibody reactivity for autoantigens in serum with anti-enteric neuronal antibodies and no reactivity for the same autoantigens in samples not containing anti-enteric neuronal antibodies in our immunostaining assay. Antibodies in the sera from IBS patients recognized only three antigens out of an 8,000 immunoprotein array. The three antigens were: 1) A nondescript ribonucleoprotein (RNP-complex); 2) small nuclear ribonuclear polypeptide A; 3) Ro-5200-kD). A general conclusion is that the gut functions poorly when the enteric nervous system is damaged and does not work at all when it is missing. Symptoms in an unexpectedly large subset of IBS patients appear to be a reflection of enteric neuronal damage or ablation caused by circulating anti-enteric autoimmune antibodies. There is a need for a simple-inexpensive test for the three circulating anti-enteric neuronal antibodies to be included in diagnostic work-up of patients presenting with functional GI symptoms (e.g., ELISA strips).

Jackie.Wood@osumc.edu