

DIAGNOSTIC VALUE OF A PERORAL SUCROSE PERMEABILITY TEST IN CHILDREN WITH RECURRENT ABDOMINAL PAIN

L. Pinotic¹, M. Zecic-Fijacko², A. Vcev³, D. Paulini³, S. Mihaljevic³, D. Horvat³,
Z. Mandic¹, A. Votava-Raic⁴, M. Boranic⁵

¹*Department of Pediatrics* ²*Department of Laboratory Diagnostics* ³*Department of Medicine, Clinical Hospital Osijek* ⁴*Children's Clinics, University Hospital and Medical Faculty, Zagreb*

⁵*Medical Faculty, Osijek, Croatia*

kresimir.pinotic@os.tel.hr

The reliability of a peroral sucrose permeability test as an indirect method for the detection of mucosal lesions in the upper gastrointestinal tract was investigated in children presenting with recurrent abdominal pain. If the lesions are present, sucrose is absorbed and appears in urine. The investigation included 42 children hospitalized because of recurrent abdominal pain and 43 hospitalized children with minor illness who had no abdominal symptoms (control group). The test was positive in 27 of 42 children with recurrent abdominal pain (63%), and in 26 out of 38 in whom esophageal, gastric or duodenal mucosal lesions were found by means of gastroduodenoscopy. The sensitivity of the test was high in regard to the detection of gastric lesions (88%), low in regard to the esophageal lesions (40%), and intermediate regarding the duodenum (70%). This can be attributed to the respective mucosal surface areas and to the duration of contact with the sucrose solution. *Helicobacter pylori* infection was present in 9 patients. Conclusion. The peroral sucrose permeability test was found to be a useful a non-invasive diagnostic method. It may help decide whether invasive endoscopy is indicated. In patients in whom gastroduodenoscopy cannot be performed, the test may offer an acceptable diagnostic alternative. In patients with endoscopically verified lesions, it may serve for monitoring the course of the disease and for assessing the effect of therapeutic measures.

