

## FP02

### FUNCTIONAL ABDOMINAL PAIN IN CHILDREN AND ADOLESCENTS: ASSOCIATION WITH IMPAIRED GASTRIC MOTILITY

**Niranga Manjuri Devanarayana<sup>1</sup>, R. Dharmawansa<sup>1</sup>, Shaman Rajindrajith-**

*<sup>1</sup>Department of Physiology, -Department of Paediatrics, Faculty of Medicine, University of Kelaniya, Ragama, Sri Lanka*

**INTRODUCTION:** Chronic abdominal pain is a common paediatric problem affecting nearly 10% of school aged children. The majority of them have functional gastrointestinal diseases including functional abdominal pain (FAP). In them, the exact mechanism of pain remains unclear. Periumbilical pain, characteristic of this condition, appears to be of visceral origin, probably originating in the gastrointestinal tract. Gastrointestinal motility disturbances are reported in children with irritable bowel syndrome and functional dyspepsia, but are not properly studied in those with FAP. **OBJECTIVES:** To evaluate gastric emptying and antral motility in children and adolescents with FAP, **DESIGN, SETTING AND METHOD:** Sixty six children with FAP [24 (36.4%) males, 4-14 years, mean 8.2 years, SD 2.7 years] referred to the Gastroenterology Research Laboratory for gastric motility studies and 20 healthy children without evidence of gastrointestinal diseases [8 (40%) males, 4-15 years, mean 8.9 years, SD 2.7 years] were evaluated. FAP was diagnosed using Rome III criteria. None had clinical or laboratory evidence of organic diseases except for one control who was positive for *Helicobacter pylori* stool antigen test. All subjects underwent ultrasonographic assessment of liquid gastric emptying rate (GE) and antral motility, using a previously reported method. **RESULTS:** Average gastric emptying rate (42.7% vs. 66.2%), amplitude of antral contractions (60.6% vs. 89%), frequency of contractions per 3 minutes (8.5 vs. 9.3) and antral motility index (5.2 vs. 8.3) were significantly lower in patients with FAP compared to controls ( $p < 0.01$ ). Fasting antral area was higher in patients (1.2 vs. 0.6,  $p < 0.01$ ). The gastric emptying rate had a significant negative correlation with the scores obtained for severity of abdominal pain ( $r = -0.42$ ,  $p < 0.005$ ). **CONCLUSIONS:** Gastric emptying rate and antral motility parameters are significantly impaired in patients with functional abdominal pain. Gastric emptying rate had negative correlation with the severity of abdominal pain.