

5.1 Low fat diet and childhood functional recurrent abdominal pain syndrome: a preliminary study

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ABSTRACT

Background: There is a lack of high quality evidence on the effectiveness of dietary interventions on childhood recurrent abdominal pain (RAP). Fat is well known to affect gastrointestinal motility, but to date no studies have evaluated the value of low fat diets in RAP.

Methods: Forty two children with functional RAP [19 (45.2%) males, 5-15 years] were recruited after electrogastrography (EGG), gastric emptying (GE), antral motility and oro-caecal transit (OCT) studies. Subjects were randomly allocated to low fat diet (group 1) and normal diet (group 2). Dietary instructions were provided in a diary and during an interview and energy and fat intake were recorded. Patients consumed allocated diet for 4 weeks. They were assessed before intervention and at 4 weeks using global seven-point scales for severity of symptoms and changing symptoms.

Results: At one month, 12 (57.1%) patients in group 1 and 13 (61.9%) in group 2 had improvement of symptoms ($P=0.759$). The average scores obtained for pain severity, change in symptoms and frequency of episodes were not different between two groups ($P=0.62$). More patients with delayed GE had improvement in symptoms [9 (82%)] following a low fat diet compared to those with normal GE and OCT [3 (30%)] ($P=0.024$, power of the study 86%, at significant level of 0.05).

Conclusions: Low fat diet seems to be beneficial for the subgroup of functional RAP children with delayed gastric emptying and intestinal transit while it has no significant therapeutic effect on patients with normal gastrointestinal motility.