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**Interactions Between Diet, Intestinal Microflora And Mucosal Morphology in Paediatric Patients With Ileal Pouch-Anastomosis**

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**BACKGROUND:** Nutritional factors may be important in the etiology of IBD and pouchitis. Increased consumption of fat and decreased consumption of vegetables and fruits has been found among UC patients. Dietary fiber may have a major role in qualitative and quantitative composition of the microflora. Aim: To evaluate interactions between nutritional factors, pouch inflammation, and mucosal morphology in patients with history of pouchitis compared with subjects with normal pouchal outcome at least 5 years after IPAA for UC. METHODS: 32 study subjects, 17 (M/F 7/14, mean age 45.8 y) with optimal outcome (no history of pouchitis, normal endoscopy and histology), and 21 (M/F 11/10, mean age 47.3 y) with history of pouchitis (mean PDAI 5.3, range 5-13) were enrolled. 7 day food diary was recorded, endoscopy performed and biopsies taken from the pouch for histology and mucin staining. Fresh fecal samples were collected and quantitatively cultured. None of the patients was studied during an acute exacerbation of pouchitis. RESULTS: Mean (±S.D.) was 8 years in both groups. No differences were found in the mean energy or nutrient intake between pouchitis patients and those with optimal outcome. Fecal concentrations (log10, CFU/g) of anerobes (mean 9.4 ± 8.7, p = 0.007) and aerobes (8.0 ± 7.0, p = 0.007) were significantly higher in patients with pouchitis. History than in those with optimal outcome. Subgroup analysis was strongly associated with bacterial overgrowth (p = 0.001). Patients (N = 14) with subclinical porcine endocarditis (corticosteroids) had a trend toward higher intake of fats (p = 0.14), monounsaturated (p = 0.05) and polyunsaturated (p = 0.09) fatty acids, and lower intake of fruits (p = 0.60) and dairy products (p = 0.06). They consumed less lactose (p = 0.02), calcium (p = 0.03), potassium (p = 0.03), and vitamin C (p = 0.05), which can be explained by reduced consumption of dairy products and vegetables. Consumption of synthetic antioxidations had a negative correlation with number of fecal aerobes (r = -0.42, p = 0.03). CONCLUSIONS: An association was found between nutritional factors and pouch morphology. In the etiology of pouchitis, dietary factors may have a modulatory role.

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**Effects of Human Milk and Infant Formula on the Development of Gastric Mucosal Activity in Preterm Infants**

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Our recent study suggests that human milk contains mottolin and there is an elevated plasma mottolin concentration in lactating women. Maturation of gastric mucosal activity during the first six months after birth is reported in newborns. The aim of this current study was to investigate whether different feeding methods would affect the development of gastric mucosal activity. Methods: Seventeen preterm newborns with a mean gestational age of 32 weeks were recruited in the study and divided into 2 groups (based on the mother’s choice), umbilical breast feeding (10 infants) or formula (Simsima) feeding (7 infants). Gastric mucosal activity was recorded 5 months after birth using noninvasive electrogastrigraphy (EGG). The EGG was performed at the infant’s home for a period of 12 hours and the first 2 artifacts-free data were analyzed to assess the dominant frequency, power (amplitude) and coherence of 4.2-4.5 cpm (cm/s) slow waves, slow waves, and activity. Results: 1) The method of feeding had no effect on the rhythmicity of the gastric slow wave. The percentage of normal 2-4 cpm slow waves was 54.5±6.0% in the infants with breast feeding and 59.5±2.2% in infants with formula feeding (p = 0.70). Similarly, there was no difference in the dominant frequency of the EGG between the two groups (humans milk 3.28±0.08 cpm vs. formula 3.23±0.11 cpm, p = 0.6). The minute-by-minute variation of the normal slow wave frequency was 0.5±0.2 in the human milk group and 0.45±0.2 in the formula group (p = 0.5). 2) However, the amplitude of the gastric slow wave measured from the EGG was significantly higher in the infants with breast feeding. The dominant power of the gastric slow wave was 31.5±1.36 (b) in comparison with that in the formula fed infants (29.2±1.48, p = 0.04). Conclusions: While the development of gastric slow wave rhythmicity is unrelated to the method of feeding, breast feeding seems to enhance the amplitude of the gastric slow wave in the preterm infants the first two months after birth. This could possibly be attributed to mottolin contained in the human milk.

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**A Fructose (Fructose) Restricted Diet and Dietary Counseling in Patients (pts) with Dietary Fructose Intolerance**

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BACKGROUND: We wanted to test the concept that elimination or reduction of fructose in the diet of diabetic pts exhibiting mild related gastrointestinal symptoms and/or diarrhea (GBD) results in improvement and enhanced quality of life. High fructose corn syrup is ubiquitous as a sweetener in processed foods and beverages. Many sweetened beverages contain 30-75% of fructose enriched sugar in the typical volume consumed. This amount of fructose is difficult for most to tolerate. The majority of patients with chronic fructose intolerance associated with GBD have fructose digestive intolerance. Most are mistreated/skewed intestinal intolerance. High sodium diet/insulin resistant syndrome (IRSD). To test the hypothesis that fructose content in the diet is responsible for the symptoms, we asked pts to respond to a quality of life questionnaire after they had an opportunity to modify their dietary practices. These pts were more than 6 months out from the counseling (9-24 mos). The hypothesis was: if fructose consumption created the problem, it would control the symptoms: Methods: 50 pts exhibiting SBG related symptoms were administered a 50gm fructose solution of fructose in 150cc of water. Urine samples were taken before and after the ingestion of fructose and patients reported their symptoms before and after the ingestion of fructose. Results: A significant decrease of 45% in SBG was demonstrated in a positive test for fructose intolerance. The patients reported no symptoms. The authors report a significant decrease in SBG related symptoms. A reduction in fructose content in patients suffering from fructose intolerance was demonstrated. This suggests a role for fructose in the pathogenesis of SBG symptoms. The results also demonstrate a significant decrease in the SBG related symptoms in patients suffering from fructose intolerance. The authors conclude that fructose is a significant factor in the pathogenesis of SBG symptoms. The results also demonstrate a significant decrease in the SBG related symptoms in patients suffering from fructose intolerance. The authors conclude that fructose is a significant factor in the pathogenesis of SBG symptoms.