The Effects of the Nutritional Content in the First 6 Months of Life on Iron Deficiency and Iron Deficiency Anemia Development in Next 6 Months

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Introduction and Objective: Iron deficiency anemia is widely observed in infancy and varies between 3-80%. In this study, we aimed to determine the effects of the nutritional content in the first 6 months of life on iron deficiency and iron deficiency anemia development in next 6 months.

Methods: The study involves 100 children between 6-12 months (56 male and 44 female). In all cases, complete blood count, serum iron, iron binding capacity, ferritin levels were determined. Haematological parameters were compared with the maternal nourishment history.

Findings: Hb, serum iron and transferrin saturation values of the cases mixed nourished with formula and breastfeeding in the first 6 months were found to be significantly high in comparison with breastfeeding (p<0.05). No significant difference was found at Htc, MCV, RDW, serum ferritin, TIBC values of the cases which had breastfeeding and mixed nourishment in the first 6 months. Whereas there was a significant difference between the feeding form in the first 6 months and frequency of iron deficiency (72%), no significant difference was found in terms of frequency of iron deficiency anemia (36%). Serum iron and transferrin saturation values of the patients who had mixed nourishment and took iron supplements in the first 6 months was found to be significantly high in comparison with the patients who had breast milk and took iron supplements (p<0.05).

Conclusion: In order to prevent iron deficiency which is still encountered highly in our country, 4-6 months breast milk feeding should be generalized, iron-rich diet should be recommended in the weaning period; iron should be supplemented to the children who are fed with breast milk.
Introduction: This is a case report of an uncommon presentation of coeliac disease with a complete absence of gastrointestinal symptoms in a disease known to have varied neuro-psychiatric manifestations.

Case Study: The patient is a 16 year old male who presented with a 5 month history of excessive somnolence. He regularly slept for 16 hours per day with additional daytime naps and had fallen asleep in the classroom. The complained of weakness that was not associated with emotions and did not exhibit a pattern of improving post rest or any phasic pattern. School attendance was sporadic.

The patient had no significant past medical history and was fully immunised. Systemic examination was normal; the patient plotted on the 9th centile for weight, 50th centile for height with no evidence of dysmorphism, rashes, joint involvement or focal neurology.

At this initial presentation there was a wide differential including subacute sclerosing panencephalitis; post viral myalgia; myasthenic syndrome; periodic paralysis; drug use and coeliac disease.

Serological testing was carried out, along with other investigations and the patient was found to have strongly positive anti-endomysial antibodies and strongly positive anti-tissue transglutaminase antibodies. Biopsy was performed and confirmed the diagnosis of coeliac disease. Treatment with a gluten-free diet was commenced and led to complete resolution of symptoms so that the patient was able to attend school and sit his exams.

Discussion: For paediatricians, coeliac disease (CD) is usually encountered in its classic form with a preponderance of gastrointestinal symptoms typically associated with weaning. However it is a disorder with multiple presenting symptoms and associations. This case highlights the fact that patients with CD who have neurological symptoms can be missed or subjected to unnecessary investigations before CD is considered.
Significant Reduction of Subcutaneous Adipose Tissue (SAT) During Tube Weaning

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Background: The accurate observation of body composition in the transition from enteral to oral feeding in children is of great importance. Nevertheless, there is a lack of research on this topic.

Objective: Therefore, we investigated the changes of anthropometry and subcutaneous body fat of long-term enterally fed children during tube weaning.

Methods: LIPOMETER was used to measure the thicknesses of subcutaneous adipose tissue (SAT) layers (in mm). LIPOMETER measurements of 15 evenly distributed body sites on the right side of the human body define the individual subcutaneous body fat distribution, so-called subcutaneous adipose tissue topography (SAT-Top). In this study, anthropometry and SAT-Top was analysed in a sample of 30 long-term tube fed children (13 girls and 17 boys) attending a specific 3-week tube weaning program. The measurements were taken twice, in the pre- and post-tube weaning stage.

Results: In both sexes a clear decrease of anthropometry and subcutaneous adipose tissue has been found. The reduction of the initial fat mass in girls was -26.1 mm, -30.7%, (p=0.002) and in boys -12.5 mm, -18.4%, (p0.001). Generally, girls demonstrated thicker SAT layers in each of the SAT-Top measurements and a higher decrease of subcutaneous adipose tissue during tube weaning. At discharge the medians of total subcutaneous adipose tissue in girls was 58.9 mm and in boys 55.5 mm.

Conclusions: In this study the basic documentation of changes in anthropometry and subcutaneous adipose tissue during tube weaning is provided. These results could potentially help generate guidelines for safe tube weaning.
Background and aims: The relation between recurrent respiratory tract infections and gastroesophageal reflux is suggested by different studies. The aim of this study is to explore this relationship and to evaluate the outcome after appropriate treatment.

Methods: A group of 53 children with recurrent respiratory tract infections, admitted in a pediatric gastroenterology regional center in northeast Romania, were evaluated for the presence of gastroesophageal reflux by 24 hour continuous esophageal pH monitoring and the results were interpreted using the Boix Ochoa score. All patients with positive score received treatment with proton pump inhibitors and they were evaluated again after 2 months.

Results: 41 children (77.36%) had gastroesophageal reflux proved by a positive Boix Ochoa score, while 12 (22.64%) had a negative score. After a 2 months treatment with proton pump inhibitors the Boix Ochoa score remained positive for 8 patients (19.51%).

Conclusions: Recurrent respiratory tract infections should be a solid reason for evaluating the presence of a gastroesophageal reflux by 24 hour continuos esophageal pH-metry especially in the cases with poor response to treatment. The most plausible explanation of this relationship remains the microaspiration or macroaspiration of the gastric refluate and vagally mediated esophageal-bronchial reflex. Adequate treatment of gastroesophageal reflux solves or at least helps the treatment of recurrent respiratory tract infections.
Material and methods: Our study included children with RVI, aged 12-36 month (1\textsuperscript{st} group n=76 patients, 2\textsuperscript{nd} group, n=72 patients, which used complex therapy with probiotic ). The intestinal bacterial microbiota was examined from stool samples.

Results: The Rotavirus infection (RVI) patients have identified intestinal disbioses of different degree before the treatment (1 degree 50.28±1.94%, 2 degrees 20.37±1.23 % in the 1\textsuperscript{st} group and 42.37±2.16 and 11.52±1.94% in the 2\textsuperscript{nd} group). The violation of level of population of anaerobes, in particular Lactobacillus and Bifidobacterium have leading role in forming of Disbioses. 

During the comparative analysis in the patients were found, that before treatment was indicated 1 degree of Disbioses (level of Lactobacillus $10^7$ -$10^8$ was 50.28±1.94% in the first group and 42.37±2.16 accordingly, while after the use of treatment were 40.22±1.88% in the 1\textsuperscript{st} group and not identified in 2\textsuperscript{nd} groups. Presence of Bifidobacterium in a concentration $10^7$ from 18 cases decrease to 15 cases in the 1\textsuperscript{st} group and from 21 to 12 cases for the children at the 2\textsuperscript{nd} group. 2 degrees of Disbioses (Lactobacillus $10^7$ -$10^5$ and Bifidobacterium $10^5$, 6 and 3 cases accordingly on groups, at results after treatment - 3 and 0 cases accordingly.

Conclusion: Our results indicated the population levels of microbiota such as Lactobacillus and Bifidbacterium in caecal contents in 62 subjects (84.39±1.78%) was significantly higher in the group patients which used basic therapy with including probiotic All of information of medical moments were taken in optimization of medical algorithm and were confirmed the positive results of microecological researches.
Helicobacter Pylori in Persistent Idiopathic Chronic Urticaria

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Introduction: Recent studies have shown a high prevalence of H.Pylori infection in patient with idiopathic chronic urticaria. Some studies reveal the role of eradication of this infection in remission of urticaria symptoms in these patients. Because of controversy found in these studies we decided to assess the effect of Helicobacter Pylori eradication in the treatment of patients with resistant idiopathic chronic urticaria.

Methods: In a clinical trial study, 120 patients in a range of 4-20 years with idiopathic chronic urticarial not responsive to routine treatment (antihistamines and corticosteroids) referred to children hospital were studied and after performing a UBT they divided two groups, UBT (-) and UBT(+). Eradication therapy for H.Pylori infection started with a 3 drug regimen for these patients for two weeks. Symptoms and urticarial manifestations were recorded at first. After 2 months UBT was performed for patients who received eradication therapy. In those patients who eradication was done, urticaria symptoms and level of responsiveness to treatment was recorded in a period of 3 months.

Results: Of 120 patients, 35% were male and 65% were female with mean age of 14.1±5.43 years. Positive history of allergy was 47.5% vs 13.9% in the UBT(-) and UBT(+) groups. The period of symptoms was permanent in 52.5% of patients and 0% of controls. Severity of urticaria was severe in 12.5% of patients and 2.5% of controls. There was a statistically significant difference in period of symptoms before diagnosis, severity of urticaria, abdominal pain, period of symptoms positive history of allergy and cell blood count between two groups.

Conclusion: There is no significant relation between eradication of H.Pylori infection and remission of symptoms in idiopathic chronic urticaria patients.
Comparison of the New WHO and CDC, 2000 Growth Charts in the Nutritional Assessment of Children Admitted in a Pediatric Digestive Endoscopy Unit

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Background: The systematic assessment of nutritional status at the hospital admission is an essential part of optimal clinical care and prompt interventions.

Objective: To compare the agreement of child nutritional pattern estimated by the new World Health Organization (WHO) and the Centers for Disease Control (CDC) growth charts.

Materials and Methods: This was an observational study of 232 consecutive symptomatic children (159 girls, mean age 9.9 years, range 6 months - 19 years) submitted for the first esophagogastroduodenoscopy in our pediatric endoscopy unit over the last 2 years.

All patients were evaluated for z-score indexes: weight / age (W/A), stature / age (S/A), and body mass index (BMI) – for age (BMI/A), in each of the two references, to compare the differences in the prevalence of the nutritional patterns (underweight / wasting; risk to underweight, stunting, healthy / normal, overweight and obese). The following applications were used: EPI INFO 3.5.3, ANTHRO PLUS 2006, SPSS 18.0, (p<0.05 statistically significant).

Results: Despite the high agreement observed between the two criteria for the three z-score indexes: W/A, S/A, BMI/A (significant Pearson correlation, respectively 0.714, 0.960 and 0.962, with 0.5 high correlation) there are some differences.

Thus, z-score of BMI/A estimated by new WHO criteria were more rigorous than the CDC criteria for the diagnosis of undernutrition: wasting 33 (14.22%) and risk for underweight 36 (15.52%) versus underweight 59 (25.43%) and more patients were classified as presenting overnutrition, respectively: 26 (11.21%) versus 22 (9.48%).

However, the prevalence of stunting was similar by each of the two references, respectively: 14 (6.03%) versus 15 (6.47%), with significant Pearson correlation (0.960).

Conclusions: The use of new WHO references has a significant advantage over CDC criteria for children’s nutritional screening at the hospital admission, because they are enables to detect a higher number of children at nutritional risk, in particular in developing countries.