The problem is seldom limited to the child alone and non-organic factors must also be addressed.

Aims: To audit the first 18 months of practice in a new regional EDS clinic from July 2007-December 2008

Methods: Retrospective chart review of clinic reports was carried out. All patients had formal assessment of EDS by a speech and language (SALT) and occupational therapist (OT), a medical review by a doctor and dietetics consult at each clinic visit.

Results: 28 patients received full assessment. Average age of 1st consult was 4.16 years. 27/28 patients had an underling diagnosis, the most common being; genetic disorder(n=7), autism(n=3), cerebral palsy(n=3), Ex-prem(n=3), developmental delay of unknown aetiology(n=3). Diverse reasons for referral included(often > 1); issues with coordination of swallow(n=14), perceived behavioural issues(n=6), chronic reflux(n=5), PEG feeding(n=4), aspiration(n=4). 22/28 patients had an abnormal EDS assessment. The two most common interventions initiated were a sensory feeding programme(n=15) or food desensitisation programme(n=4) by SALT/OT.

Conclusion: Our EDS clinic has provided further therapeutic intervention for children already with complex medical needs. In conjunction with medical therapy, behavioural and oromotor strategies can be applied successfully even in feeding disorders with an underlying organic cause.

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EFFECTS OF BREASTFEEDING ON MORBIDITY AND DURATION OF HOSPITALIZATION OF CHILDREN WITH ACUTE DIARRHEA

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Introduction: The acute diarrhea is one of the most common causes of morbidity and for hospital treatment of children in nondeveloped countries. Etiology is usually viral infection but can be included other infective agents. Breastfeeding importance decreases morbidity, clinical manifestation and duration of hospitalization in compare with children with infant formulas.

Aim: of this presentation is to present the children hospitalized from acute diarrhea under 6 months old exclusively on breastfeeding with children of the same age feeded with infant formulas, in Children's Clinic.

Methods: Anamnestic data, clinical examination and statistical data.

Discussion: Retrospectively we analyzed 219 children under 6 month age hospitalized from acute diarrhea during 2008-2009. Children were divided in two groups depending on their feeding. In first group, were 66 children with breastfeeding, clinical manifestation and electrolyte disturbances in admission were less severe, hospital treatment duration was significantly shorter in compare with group of children without breastfeeding. None of children on the breastfeeding didn't presented clinical manifestations of severe dehydration in compare with second group were 21 children had severe dehydration.

Conclusion: Promotion of breastfeeding in nondeveloped countries, excluding other priority has very important role in prevention, severity and treatment of acute diarrhea.

Key word: Breastfeeding, Infant formula, Diarrhea, Hospitalisation duration.

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THE SELECTED LIPIDS PARAMETERS IN NEWBORNS AND INFANTS

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Introduction: Disorders of lipids metabolism, particularly elevated cholesterol concentration are favouring factors of atherosclerotic changes in the arteries. The lipids metabolism may be the results of the influence of genetic as well as environmental factors.

Aim: The aim of the present study was the evaluation of the concentration of triglycerides, total cholesterol and its fractions and apolipoproteins in the newborns and infants with relation to intrauterine growth, nutritional status and method of feeding from the birth.

Material and methods: The research included 185 newborns and infants aged 2 -19 weeks. In all the studied children the gestational age, birth weight, body mass index (BMI) and the method of feeding was assessed. In the blood serum the concentrations of triglicerides, total cholesterol and its fractions: LDL, VLDL and HDL as well as apo-AI and apo-B were determined.

Results: Concentrations of triglycerides and VLDL cholesterol were significantly lower ($p< 0.05$) in children with birth weight below 10-th percentile in relation to the gestational age. In children with BMI values over 90-th percentile concentrations of triglicerydes, total cholesterol, VLDL cholesterol and apolipoprotein B were significantly higher ($p< 0.05$). The concentrations of the total cholesterol, VLDL cholesterol, apo- AI and apo-B were higher in breast-fed children when compared to the children fed with formula ($p< 0.05$).

Conclusion: The obtained results can suggest that the concentrations of lipids, lipoproteins and apolipoproteins in infants may depend on theirs intrauterine development, nutritional status and the method of feeding from the birth.

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CHANGES IN IMMUNOMODULATORY CONSTITUENTS OF HUMAN MILK IN RESPONSE TO ACTIVE INFECTION IN THE NURSING INFANT

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Objective: To test the hypothesis that mothers respond to their nursing infants´ infection by modulating white blood cells and other immunologic factors in their breast milk.

Methods: Breast milk of mothers to infants, up to 3 months of age, who were admitted to the pediatric department with fever, was sampled twice, during active illness and recovery. Milk from mothers of healthy infants served as controls. Total leukocyte count and differential as well as IL-10, lactoferrin and secretory IgA levels were analyzed.

Results: 29 sick infants and 17 healthy controls were included. Total CD45 leukocyte count dropped from 8949±10702 in the acute phase to 4773±6535 cells/ml milk in recovery ($p< 0.03$) with macrophages / monocytes count decreasing from 1801±2015 to 800±1273 cells/ml, respectively ($p< 0.005$). CD4 T lymphocytes dropped from 45.06±12.03% to 37.58±12.55% ($p< 0.02$) and CD13/16 neutrophils decreased from 82.33±10.25% to 75.11±16.32% ($p< 0.03$). These differences were more pronounced in mothers´ milk of babies with proven infection (e.g. urinary tract infection, pneumonia, meningitis). Such differences were not recorded in subsequent samples of the controls. Secretory IgA and lactoferrin levels did not change significantly in the study group. IL-10 levels decreased in the sick infants breast milk after recovery ($p< 0.03$), but also in the healthy controls.

Conclusions: During infection the number of leukocytes, macrophages / monocytes specifically, is increased. These results may support the dynamic nature of immune defense provided by breastfeeding sick infants.

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DIETARY FAT QUALITY DURING DEVELOPMENT AFFECTS BODY FAT ACCUMULATION IN ADULT MICE

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We previously reported that dietary fat quality of postnatal nutrition, i.e. fatty acid composition, plays an important role in the development of body composition in mice (Oosting et al. 2009). The current study investigates whether another aspect of dietary fat quality in postnatal nutrition, i.e. the physical properties of fat globules, may also affect development of body composition. The production process of infant milk formula (IMF) alters the physical properties of the lipid globules compared to raw milk (RM; Lee et al., 2002). We developed an IMF with a complex lipid matrix (CLM) which more closely resembles the physical properties of lipid globules in RM, like breast milk, and we evaluated the long term effects of CLM versus standard IMF (CTR) on body composition in mice.

Postnatally, between 16 and 42 days of age, male C57Bl/6j mice were subjected to a diet containing either CLM or CTR. Subsequently, a moderate Western style diet (WSD, 10 w% fat) was fed until dissection at 126 days of age. Body composition was monitored by dual x-ray absorptiometry.