

Nutrition and gastroenterology / Micronutrients

THE USE OF SPECIALIZED FORMULAS FOR PRETERM NEWBORNS WITH CONGENITAL DEVELOPMENTAL DEFECTS OF THE DIGESTIVE TRACT (497)

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Introduction /Case Report

Enteral feeding in preterm newborns experienced surgery on congenital developmental defects (CDD) of the digestive tract (DT) requires supply of essential ingredients to ensure biologically valuable psychophysical development. Breast milk is the base of natural feeding. In case of digestive disorders caused by DT CDD and surgery, changes of the intestinal functional state are found (insufficient breaking down, assimilation, absorption of nutrients, peristalsis), stipulating the necessity to use special formulas.

To analyze the use of the element amino acid formula «Nutrilon® Amino» in preterm newborns afflicted with CDD of the DT in the post-operative period.

Patients and Methods

26 preterm newborns were observed after surgery on CDD of the DT. The control group included 25 healthy newborns. Laboratory findings of the functional intestinal state included: the level of albumin, alpha-1-antitripsin, secretory immunoglobulin A, fecal elastase 1, PMN-elastase, calprotectin by means of enzyme-bounded immune-sorbent method (ELISA), Community laboratory Cottbus, Germany; the content of lipids, starch and undigested food remains in coprogram and spectrum of intestinal microbiocenosis.

Results

The results obtained were indicative of a positive effect after using the formula «Nutrilon® Amino» in preterm newborns which was proved by satisfactory food tolerance (absence of regurgitation, flatulence, stasis, frequent or delayed stools, pathological changes in coprogram) 10 days after use. Normalization of the functional state of the intestine was proved by the laboratory findings of coprofiltrate, disappearance of the signs of inflammation and decreased permeability of the intestinal mucus in particular, which was proved by normalization of the following signs: α 1-antitripsin, calprotectin, albumin and sIgA, elastase level, PMN-elastase). The indices of coprogram and microbiocenosis of the intestine in infants corresponded to the norm.