

Selected Abstracts

Effect of Delivery Room Routines on Success of First Breast-Feed

Seventy two infants delivered normally were observed for 2 h after birth. In the separation group (n = 34), the infant was placed on the mother's abdomen immediately after birth but removed after about 20 min for measuring and dressing. In the contact group (n = 38) contact between mother and infant was uninterrupted for at least 1 h. After about 20 min the infants began to make crawling movements towards the breast; the rooting reflex soon came into play, and at an average of 50 min after birth most of the infants were sucking at the breast. More infants in the contact group than in the separation group showed the correct sucking technique (24/38 vs 7/34). Forty (56%) of the seventy two mothers had received pethidine during labor; the infants were also sedated and most of them (25/40) did not suck at all. It is suggested that contact between mother and infant should be uninterrupted during the first hour after birth or until the first breast-feed has been accomplished, and that use of drugs such as pethidine should be restricted.

Abstracted with permission from: Righard L, Alade MO. Effect of delivery routines on success of first breast-feed. *Lancet* 1990, 336: 1105-1107.

Hypoglycemia During Diarrhea in Childhood: Prevalence, Pathophysiology and Outcome

To determine the frequency and outcome of hypoglycemia during diarrhea in childhood, authors screened 2003 consecutive patients less than 15 years of age who were admitted to a diarrhea treatment center in Dhaka, Bangladesh. Hypoglycemia, defined as a blood glucose concentration <2.2 mmol per liter, was found in 91 patients (4.5%), 39 (42.9%) of whom died. They also measured the plasma concentration of glucoregulatory hormones and gluconeogenic substrates in 46 of the patients with hypoglycemia who were 2 to 15 years old and in 25 normoglycemic patients matched with them for age and weight.

The patients with hypoglycemia had diarrhea for less time than the normoglycemic patients (median, 12 vs 72 hours; $p < 0.05$), and their last feeding had been 18 hours before admission, as compared with 9 hours for the normoglycemic patients ($p < 0.05$). The groups were similar in terms of nutritional status, the proportion of patients who had fever, and the types of pathogens recovered from stool samples. The plasma C-peptide concentrations were low (<0.30 mmol per liter) in all the hypoglycemic patients. As compared with the normoglycemic patients, the patients with hypoglycemia had elevated median plasma concentrations of glucagon (44 vs 11 pmol per liter; $p = 0.001$), epinephrine (3400 vs 1500 pmol per liter; $p = 0.012$), nor-epinephrine (7500 vs 2900 pmol per liter; $p = 0.002$), and lactate (3.5 vs 2.1 mmol per liter; $p = 0.020$) and similar alanine and β -hydroxybutyrate concentrations. Eighteen hypoglycemic patients with severe malnu-

trition had been ill longer than 26 better-nourished patients with hypoglycemia (median duration of illness, 18 vs 10 hours; $p = 0.023$) and had lower median plasma concentrations of lactate (1.9 vs 3.9 mmol per liter; $p = 0.021$) and alanine (173 vs 293 Umol per liter $p = 0.040$).

The authors conclude that hypoglycemia is a major cause of death in association with diarrhea. Because of elevated glucose counter regulatory hormones and low levels of gluconeogenic substrate, it is most often due to failure of gluconeogenesis.

Abstracted with permission from: Bennish ML, Azad AK, Rahman O et al. Hypoglycemia during diarrhea in childhood. Prevalence, pathophysiology and outcome. N Engl J Med 1990, 322: 1357-1363.

Loperamide Poisoning in Children

Antidiarrheal agents are indiscriminately used in developing countries. The World Health Organization recommends that no anti-diarrheal agent should be used in acute watery diarrhea because most such preparations are either useless or even dangerous for children. One such drug is loperamide (Imodium) available in Pakistan as capsule, syrup and drops. The package states that the drug should not be used in children less than one year of age. In practice this warning is useless in a country where drugs are freely available over the counter and most of patients cannot read the instructions.

During November and December, 1989 authors encountered 19 infants with severe

abdominal distension and paralytic ileus with a history of receiving loperamide drops. Eighteen children (4 girls, 14 boys) were aged between 1½ and 6½ months; the other girl was 2 years old. Of these 19 children 6 died, 4 left the ward seriously ill because the parents wanted the child to be at home before he or she died, and 9 recovered fully. No other cause of abdominal distension could be established and electrolytes were normal (sodium 114-138 and potassium 2.7-6.1 mmol/L).

Comments

The authors have published an alarming report of infantile deaths associated with loperamide injection. Although there is no rigorous scientific proof for the poisoning, the temporal relationship can not be ignored. The antifertility drugs are aggressively marketed both as syrup and tablet-forms in our country also. Their injudicious use is widely prevalent. This report is highly relevant in our milieu. A warning about the risks involved in their use in children on the packing insert and label is not sufficient to prevent their use in young children. The question of regulating their sale and production in syrup forms for pediatric patients should be given a high priority.

Abstracted with permission from Bhutta TI, Tahir KI. Loperamide poisoning in children. Lancet 1990, 335: 363.

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