G.K.Medhi,
J.Mahanta,
Regional Medical Research Center,
North Eastern Region,
Indian Council of Medical Research
Dibrugarh, Assam, India
Correspondence:
Dr. J. Mahanta,
Director
E-mail: icmrrcdi@hub.nic.in

REFERENCES

1. Read M, Catteneo A. The optimal duration of exclusive breast feeding. IBFAN Breast feeding Briefs 2001; 31-32: 1-10.
2. National Family Health Survey, India (1992-93), International Institute of Population Studies, 1995; 269-287.
3. WHO. Measuring change in nutritional status: Guidelines for assessing the nutritional impact of supplementary feeding program for vulnerable groups, Geneva: WHO, 1983.
4. Phukan, RK, Mahanta, J. A study of Neonatal Deaths in the Tea gardens of Dibrugarh District of Upper Assam. J Indian Med Assoc, 1997; 96: 333-337.
5. Sinha A, Kumar AR. Infant growth in relation to feeding practices in low-income families. Indian Pediatr 1991; 28: 57-64.

Lactobezoar: A Rare Cause of Ileal Obstruction

Intestinal obstruction caused by inspissation of formula feedings should be considered in any case of distal small bowel obstruction in neonates and infants within six weeks after birth. We report a case of lactobezoar causing terminal ileal obstruction that required surgery.

A five-week-old male child weighing 2950 g was admitted with history of loose stools of four days duration. The child was being given formula feed. This was followed by marked abdominal distension. Plain *X*-ray abdomen revealed grossly dilated bowel loops and mottled soft tissue density appearance in the region of right iliac fossa (*Fig. 1*). Barium enema study done did not contribute further. As the general condition of the child was getting worse with progressive abdominal distension, laparotomy was done after rapid resuscitation. The small bowel loops were found greatly distended and dilated up to terminal ileum where there was a white thick curd for a length of six cm causing obstruction. It was kneaded into the caecum and the obstruction got relieved. Post-operative period was uneventful and the child progressed well.

Obstruction of small bowel by milk curds was first described by Cook and Richman(1) in 1969 when they presented a "new type of neonatal obstruction". Since then about 70 cases have been reported in the literature. The exact incidence is not known but Lewis, *et al*.(2) attributed 17 of 238 cases of neonatal obstruction to inspissated milk. Typically the syndrome presents as small bowel obstruction in an infant who has passed first meconium and then milk stools. If suspected, inspissated milk obstruction can be diagnosed and treated nonoperatively based on characteristic radiographic findings. While the majority of cases have been treated surgically, four reported patients were relieved by gastrografin enemas and two have resolved spontaneously(1,2). Of six reported attemps at

Fig. 1. Plain X ray showing dilated bowel loops and mottled soft tissue density appearance in the region of the right iliac fossa.

osmotic reduction, two have been unsuccessful, one of which resulted in perforation. Upon exploration, the most common location of the milk curd is the terminal ileum. Typically, the plug is 2 to 3 cm long and can be manually milked through the ileocaecal valve. Occasionally, the plug involves the proximal bowel so that an enterostomy and acetylcysteine irrigation are needed(2). Rarely, the obstruction is in the transverse colon. Perforation has been reported(1,2).

The etiology of the inspissation is still not clear. Analysis of the surgically removed plugs has shown a preferential absorption of water and protein, and a concentration of fat and calcium(2). This would explain why infants who are breast fed do not develop inspissation; the fat in breast milk is 92% absorbed while that in formula is only 65% abosrbed.

A. Michael,
S. Sellaraman,
Departments of Pediatrics and Pediatric Surgery,
Thanjavur Medical College, Thanjavur, Tamilnadu 613 007, India.
E-mail: dramichael@yahoo.co.in

REFERENCES

1. Cook RC, Richman PP. Neonatal intestinal obstruction due to milk curds. J Pediatr Surg 1969, 4: 599-605.
2. Lewis CT, Dickson JA, Swain VA. Milk bolus obstruction in the neonate. Arch Dis Child 1971, 52: 68-71.
3. Steiner GM. Abnormal meconium and 'milk inspissation'. Proc R Soc Med 1972, 65: 733-734.
4. Southgate DA, Widdowson EM, Smits BJ. Absorption and excretion of calcium and fat by young infants. Lancet 1969, 1: 487-489.

Clinical Significance and Type II Errors under the Magnifying Lens

The article by McGlone, *et al.*(1) attempting to simplify the insertion of umbilical artery catheters (UACs) by use of a magnifying lens kindled our interest. We pen this letter in an effort to prevent a good idea being discarded due to inappropriate interpretation of the p value.

Unquestionably both the time for insertion of a UAC as well as success rate will depend on the experience of the clinician(s) performing the procedure. Depending on the institution, this group may be as diverse as