ACUTE PANCREATITIS IN CHILDHOOD

A CASE REPORT IN AN INFANT

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By 1957 only 36 cases of acute pancreatitis in children had been described in world literature. This disease occurs most frequently in middle-aged men — its incidence in the paediatric age group is extremely small. Therefore, the occurrence of acute pancreatitis in a 6-month-old Indian child prompted this case report. In reviewing the literature, the youngest patient recorded as suffering from acute pancreatitis was 8 months old.

Schneider and Sebening, reviewing 1,510 cases of acute pancreatic necrosis, found only 10 children with this condition. The rarity of the disease in childhood makes its pre-operative diagnosis unlikely, since the possibility is seldom included in the differential diagnosis. However, its consideration in the diagnosis of the acute abdomen in childhood might help to avoid an unnecessary laparotomy.

The association of essential hyperlipaemia with acute pancreatitis has been well documented and is apparent in this case report.

CASE REPORT

An Indian infant, aged 6 months, was seen on 8 June 1958 with a 4-hour history of crying and persistent vomiting of sudden onset. There had been no bowel action for 24 hours. The baby had been perfectly well the previous day.

On examination the temperature was 100·2° F. and the pulse rate 160 - 170 per minute. The abdomen was moderately distended, with generalized guarding, most marked in the right iliac fossa, right hypochondrium and epigastrium. The transverse colon was easily palpable. No bowel sounds were audible. Rectal examination revealed no masses and no tenderness. All other systems were clear. The infant was admitted to hospital and sedated with rectal 'seconal'. Abdominal examination again confirmed these findings.

The following investigations were performed:

1. *Complete blood count.* Haemoglobin, 9·6 G. per 100 ml., leucocytes 9,400 per c. mm., polymorphs 29%, lymphocytes 67%, monocytes 4%, and platelets normal.
2. *An X-ray plate* of the abdomen revealed dilatation of an upper loop of the small bowel, thought to be the jejunum.

The infant was thought to have an 'acute abdomen', possibly acute appendicitis with perforation or an intussusception, although the early abdominal distension was a factor against the diagnosis of an intussusception. In any event it was decided to perform a laparotomy.

A cut-down for intravenous transfusion was made on the right ankle. On doing this it was noticed that there was little bleeding even when the vein was opened. A pale pinkish ooze was present, which was attributed to the use of 'merthiolate' as a skin cleanser. A right transverse supra-umbilical incision was made. On incising the subcutaneous tissue, and more obviously on dividing the rectus muscle, a pale, salmon-pink fluid exuded from the vessels and cut surfaces. At no stage had it the appearance of blood. On opening the peritoneum, a great deal of milky fluid escaped. The upper loops of the jejunum were dilated, as was the transverse colon. The intervening bowel showed no abnormality — it was neither collapsed nor dilated. The lacteals were prominent, and firm, fleshy glands were present throughout the small bowel mesentery. On the right half of the transverse colon, the mesocolon, and also the free edge of the gastrohepatic omentum, there was an area of white exudate, about 1½ inches square, similar to fat necrosis.

The pancreas was oedematous. The bile ducts were normal. The ileum and colon contained what felt like and appeared to be inspissated milk. The operative diagnosis therefore was: (1) hyperlipaemia, (2) pancreatitis with fat necrosis, and (3) mesenteric adenitis — non-specific. The abdomen was closed without drainage.

Postoperatively, gastric suction was instituted and fluids were administered parenterally. 'Chloromycetin palmitate', 40 mg. per lb. per day, was given.

Blood studies of the infant at this stage revealed: (1) serum amylase, 40 Wohlgemuth units (normal 3 - 10), and (2) total lipids, 190 units (normal 16 - 30).

The urine was free from sugar. Microscopic examination of the peritoneal fluid showed the presence of fat globules. On the basis of these findings the diagnosis of acute pancreatitis with hyperlipaemia was confirmed.

The infant's condition improved steadily and he was discharged on the 10th day. Examination revealed no xanthomatosis of the skin nor lipaemia retinalis — features that may be present in cases of essential hyperlipaemia. Blood studies of the parents gave the following results: total lipids of the father, 33 units (normal 16 - 30), and total lipids of the mother, 18 units.

The blood of the father, on being allowed to stand for a few hours, showed a milky serum. This was not evident in the mother's blood.

DISCUSSION

In view of the rarity of this condition in paediatric literature, we feel this case report is of interest to both paediatric physicians and surgeons.

The association of acute pancreatitis with essential familial hyperlipaemia is known to occur. A theory of the pathogenesis of the pancreatitis in such cases appears to be that the abdominal crises are caused by embolization of agglutinated serum-lipid particles.

Management of the hyperlipaemia is at present entirely dietary and attempts at permanently reducing the neutral fat by means other than a low fat diet have not been successful.

SUMMARY

A case of acute pancreatitis in a 6-month-old child, associated with familial hyperlipaemia, is described. A plea is made for this condition to be included in the differential diagnosis of the acute abdomen in infancy, to avoid unnecessary laparotomies, although it is so rare in this age group.