Medical Memoranda

Intestinal Obstruction During Late Pregnancy Caused by Volvulus of Sigmoid Colon

The aetiology of intestinal obstruction in pregnancy has been fully discussed by Matthews and Mitchell (1948). They state that the incidence of the condition has been variously assessed by different writers as between 1 in 7,000 and 1 in 68,000 pregnancies. At the North Herts and South Beds Hospital, where no case is admitted before the 28th week, two cases of intestinal obstruction have occurred in 7,651 deliveries between the years 1940 and 1949.

I have previously referred to the difficulties of diagnosis and enumerated the possible methods of treatment (James, 1946). The following case, in which the obstruction occurred at the 36th week of pregnancy, illustrates very clearly the chief cause of errors in diagnosis—namely, to mistake the pains of obstruction for the onset of labour. It is also intended to emphasize the fact that, provided an early diagnosis is made, major surgical procedures can be successfully carried out in the abdomen at the end of pregnancy without the added risk of preliminary or subsequent caesarean section.

CASE REPORT

A primipara aged 26 was admitted to the maternity unit at the 36th week of pregnancy on April 5, 1949, because she was thought to be in labour. Slight attacks of abdominal pain first began on April 3. The pain was described as lower abdominal, and passed through to the back. On April 4 pains became more severe and occurred at five-minute intervals. She vomited three times during the day.

She was first admitted to a surgical department, but as it was considered that the uterus was contracting with each pain, she was later transferred to the maternity unit, where an experienced midwife reported "pains every five minutes." At 10 p.m. on April 5 her temperature was 100° F. (37.8° C.) and her pulse rate 96. Her tongue was dry and furred. The abdomen appeared unduly distended, and the uterus, which corresponded in size to a 36-weeks pregnancy, was pushed over to the left so that the fundus protruded in the left flank. The rest of the abdominal cavity seemed to be filled by a large bulge which was resonant on percussion. No rigidity or tenderness was detected, but with each pain the whole abdominal wall became tense so that it was impossible to say whether the uterus was contracting or not. The foetus was in the L.O.P. position with the vertex lightly engaged in the pelvis. The foetal heart was audible in the left flank, and many borborygmi were heard on the right side of the abdomen. A vaginal examination revealed that the cervix was not taken up and that the external os was closed.

An enema given at 11 p.m. produced neither faeces nor flatus. She was kept under observation for another hour while 1,000 ml. of glucose-saline was given intravenously. During this time the pains recurred every five minutes with clockwork regularity, and from her appearance it seemed almost certain that she was in labour. A second vaginal examination was made, but the cervix was still closed. Her pulse rate had risen to 110. It was clear that she was not in labour at all, and at midnight on April 5 it was decided to perform laparotomy.

Operation.—A stomach tube was passed, and under cyclopropane anaesthesia the abdomen was opened by a midline subumbilical incision. Blood-stained fluid was encountered and a loop of colon distended to about 5 in. (12.7 cm.) in

diameter presented; when eviscerated, this measured about 18 in. (45.7 cm.) in length. It was found to be a volvulus of the sigmoid colon which had passed behind the uterus and had twisted four times in a clockwise direction (Fig. 1). No necrotic areas were seen, and after untwisting the loop a flatus tube was passed per rectum, and the distension was immediately relieved.

The next problem was to replace the deflated loop on the left side of the abdomen without eventrating the uterus. This was eventually done by slipping the loop of bowel over the fundus of the uterus. The abdomen was then closed without drainage, and the flatus tube left in position.

On returning to the ward her condition was satisfactory. She was given another 1,000 ml. of intravenous saline by slow drip and frequent injections of morphine to prevent the onset of labour. Progesterone was not given, as it is doubtful whether the effect is beneficial or harmful when attempting to postpone labour.

Her post-operative progress was uneventful. Labour started spontaneously three weeks after the operation, by which time the scar was no longer painful. She was delivered easily of a living child weighing 7 lb. (3.2 kg.) and the puerperium was normal.

Before her discharge from hospital a barium enema was given, and this showed that an enormous loop of sigmoid colon was still present. A barium meal given a week later demonstrated a long ascending colon, and the caecum seemed to be resting in the left iliac fossa.

The appearance of the whole colon as visualized by the two x-ray examinations is shown in Fig. 2. She was referred for further surgical treatment at a later date in order to prevent recurrence of the volvulus.

FIG. 1.—Diagram showing relative positions of uterus and volvulus, as seen at laparotomy.

FIG. 2.—Diagram of colon as visualized in the puerperium by radiography, showing enormous dilatation persisting in loop of sigmoid colon.

COMMENT

In this case the cause of the obstruction was not appreciated before operation, but it was clear that laparotomy was required. The period of observation was not prolonged by attempts at radiological diagnosis. It was decided not to temporize by duodenal suction or postural treatment, and the time thus gained enabled the minimum surgical procedure to be carried out and caesarean section to be avoided.

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REFERENCES

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