

INTRA-UTERINE FOETAL MECONIUM PERITONITIS CAUSING OBSTRUCTED LABOUR

by

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Obstruction of labour by huge distension of foetal abdomen from intrauterine meconium peritonitis is very rare. In the absence of strict observance of routine postmortem for all the stillbirths and perinatal deaths, we are likely to miss few more cases. Abdominal and soft tissue tumours of the foetus obstructing labour is well known and abundantly described, but meconium peritonitis causing obstructed labour is infrequent and seldom reported. Bendel and Michel (1953) reviewed the literature and reported 3 cases in 108,000 live births. We have to our experience only 1 case in the last 19 years of obstetric practice in this State (Manipur). The unusual symptomatology and its rarity prompt us to report this case.

CASE REPORT

Mrs. S. 35 years was brought from Ukhrul (East District of Manipur) with complaint of difficulty in breathing and pain in the abdomen for the last 24 hours, to the antenatal Clinic on 25-5-79 following amenorrhoea of 9 months.

On examination she looked anxious and sick.

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Her abdomen was very much distended and she was dyspnoeic. Pulse 90/min. Temp. 99°F, B.P. 130/100 mm Hg. Res. 48/min., shallow and distressed; Edema of feet (++) ; Hb. 9.8 gm%, Urine-NAD.

Other systemic examination revealed no significant finding. Obstetrical Examination: Uterus 36 weeks; whole abdomen was very distended. Foetal parts could be palpated with difficulty but the presentation could not be assessed. F.H.S. was heard with difficulty, faint and distant with irregular rate.

Vaginal examination and pelvic assessment revealed adequate pelvis and no deformity. Os 3 cm with 40% effacement of the cervix; Membranes felt but there was leaking. She was admitted for further investigation and delivery.

X-Ray abdomen, P.A. view, was not helpful as it showed only a homogenous shadow. She was given 100 mg of Inj. pethedine I.M. and 1 amp. lasix and kept under strict observation.

Her blood group was 'A' +ve; V.D.R.L. test negative. She gave no history of taking any drug likely to cause foetal defects.

After about 66 hours of admission, she went into labour. The labour was obstructed and arrested after delivering the head. On further examination, a boggy soft tissue abdominal swelling of the foetus was detected obstructing further descent of the foetus. Caesarean section was decided as it was thought safest for the mother. The baby expired after few gasps within 25 minutes.

Emergency caesarean section was performed accordingly and a male baby was delivered. She had no postoperative complication and was

discharged from the hospital on the twelfth day of the operation.

POST MORTEM REPORT

Baby—male; wt. 4.5 kg. HC 51 cm.; face, nose and lips cyanosed and swollen. Abdomen markedly distended with no other congenital anomaly (Fig. 1). Peritoneal cavity contained 2 litres of brown coloured thick slimy fluid.

In the ileum, a small perforation, 3 mm in diameter, was seen in the postero-inferior aspect, more towards the antimesenteric border 4 cm proximal to the ileo-caecal junction (Fig. 2). The edges of the perforation were slightly everted. A loop of ileum 2.5 cm proximal to the perforation was dilated, tinged greenish and looked gangrenous. The ileal end was distended with light brown inspissated meconium (Fig. 3). No other pathology was detected.

Discussion

Diagnosis of meconium peritonitis while in utero is virtually impossible. At first, we diagnosed the case as acute hydramnios with probable multiple pregnancy which could not be confirmed or excluded by the X-ray. After the delivery of the baby it was diagnosed as a case of foetal ascites before the post-mortem. The baby had very tense and markedly distended abdomen which measured 59 cm. Vaginal delivery carried a great risk to the mother as meconium peritonitis was not diagnosed pre-mortem.

White (1956) defined meconium peritonitis as a sterile chemical and foreign body reaction resulting from leakage of bowel contents into the peritoneal cavity

during late intra-uterine or early neonatal period. Meconium ileus is the second main cause of intrinsic intestinal obstruction and the earliest manifestation of cystic fibrosis (Schaffer and Avery, 1971). Obstruction by a plug of inspissated meconium unassociated with cystic fibrosis may also occur (Clatworthy, *et al*, 1956). As meconium reaches the ileo-caecal valve at 4 months and rectum at 5 months of intrauterine foetal life, meconium peritonitis could occur at any time in the last 4-5 months of pregnancy (Schaffer and Avery, 1971). There was no evidence of cystic fibrosis in this case.

The prospect of survival in the intra-uterine foetal bowel perforation is meagre and often leads to still births. Even among live births operative or surgical management of the case proves fatal in majority of the cases. The present case expired soon after delivery of the head. In this case perforation might have occurred within 24 hours before delivery as there was little inflammatory reaction in the gut wall.

References

1. Bandel, W. B. and Michel, M. L.: *Surgery*, 34: 321, 1953.
2. Clatworthy, H. W. J. R., Howard, W. H. R. and Loyed, J.: *Surgery*, 39: 131, 1956.
3. Schaffer, A. J. and Avery, M. E.: *Diseases of the newborn*; 3rd Edn. 1971. W. B. Saunders Co., p. 305, 359.
4. White, R. B.: *J. Paediat.* 48: 793, 1956.

See Fig. on Art Paper IV