

SECONDARY ABDOMINAL PREGNANCY FOLLOWING RUPTURE OF CLASSICAL CAESAREAN SCAR

(Report of two cases)

by

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The incidence of secondary abdominal pregnancy and high foetal and maternal hazards associated with it make each such case worth reporting. Most of the cases reported are secondary to tubal gestation. There are, however, a few reports where secondary abdominal pregnancies have occurred after primary uterine pregnancies. We present here two cases of advanced secondary abdominal pregnancy following silent rupture of previous classical caesarean section scars.

Case I

Mrs. R.S.D., 23 years, second gravida, came as an emergency on 5th June 1969 with about 32 weeks' amenorrhoea, complaining of vague pain in the abdomen for few months and cessation of foetal movements for a few days. Her menstrual history was regular and normal.

Obstetrical History: The first pregnancy was terminated by caesarean section at term in a district hospital, about 2 years ago for obstructed labour resulting in a still-birth. The patient gave a history of abdominal pain and irregular vaginal bleeding in the first trimester of pregnancy for which she did not seek any medical advice. Vaginal bleeding stopped after a few

days but vague abdominal discomfort persisted throughout pregnancy.

At the time of admission the general health of the patient was below average. Her pulse was 86/min., B.P. 112/70 mm of Hg. Cardiovascular and respiratory systems showed no abnormality.

Abdominal examination revealed a gestation of about 34 weeks' size. Foetal parts were felt rather superficially. There was no tenderness on palpation, F.H.S. were not located. The important features during abdominal palpation were the absence of Braxton-Hicks uterine contractions and high disposition of foetal parts. Despite the superficial foetal parts the presentation and position was not clearly defined.

Vaginal examination revealed a long and tightly closed cervix with normal vaginal discharge. A firm globular mass was felt in the posterior fornix, the foetal parts were felt high up and the presenting part could not be identified.

Routine urine analysis showed no abnormality. Haemoglobin level was 7.9 Gms per cent. V.D.R.L. was negative.

A plain X-ray of abdomen and pelvis showed the evidence of a dead foetus placed transversely high up in the abdomen. Lateral X-ray of abdomen and pelvis revealed a definite diminution of space between the maternal spine and foetal parts. Hysterography could not be done because of nonavailability of the dye. The above findings led to a probable diagnosis of abdominal pregnancy.

Laparotomy was undertaken 2 days after

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admission. On opening the abdomen a thick fibrinous sac was seen underneath the parietal peritoneum which was loosely adherent to it. Adhesions were separated easily. The sac was partially covered by the omentum which was also adherent to it. The omentum was pushed aside and the sac was opened. This contained thick meconium stained liquor and a macerated foetus, which was taken out. After removing the foetus the sac was lifted up to identify the anatomy. There was a vertical rent in the anterior surface of the uterus and the margins of the sac were adherent to it. The major portion of the placenta was situated inside the uterus at the fundus and on the posterior surface. It extended a little outside the uterus and was attached to the omentum. The tubes and the ovaries on both sides were healthy. Placenta was separated from the uterine cavity and the omentum without much difficulty. The sac was excised from the uterine margin restoring the normal anatomy. Considering the previous obstetric history it was decided to preserve her uterus. The margins of the uterine rent were freshened and stitched in 3 layers.

The postoperative period was uneventful. Patient was discharged on the 10th postoperative day. In three months follow-up the patient was found to be in good general health. Her menstrual cycles were normal.

This patient reported to us on 25th April, 1972 with amenorrhoea of 7 months. On examination, she was found to be 28 weeks' pregnant. The pregnancy was normal and foetal heart sounds were heard. The previous scar was not tender. The patient was followed up regularly and an elective classical caesarean section with sterilization was done at 37 weeks on 22-6-1972. Although the lower part of the abdomen was obscured by dense adhesions, the upper part of the uterus was surprisingly free and the site of the previous repair was nicely healed. A live female child weighing 2.4 Kg. was delivered. The placenta was attached anteriorly in the upper segment encroaching upon the scar, but it was easily removed manually. Postoperative period was uneventful and the patient was discharged on tenth postoperative day.

Case II

Mrs. R.J.D., 32 years, 4th gravida, was admitted as obstetric emergency on 14-7-1968 at 32 week's gestation with a history of vague abdominal pain and vaginal bleeding at irregular intervals.

The patient had two living children. Her first pregnancy ended in 6 months abortion for which no cause could be detected; the second pregnancy was a full time normal delivery at her home. In her third pregnancy a classical caesarean section was done in a district hospital for antepartum haemorrhage. The puerperium was afebrile.

At the time of admission the general condition of the patient was satisfactory. Her pulse was 86 min. and blood pressure 100/60 mm. of Hg. Urine analysis did not show any abnormality. Haemoglobin was 7.0 Gm. per cent. Total R.B.C. 2.9 millions per cmm., W.B.C. 11,300 per cmm.

Abdominal examination revealed a gestation of 32 weeks with breech presentation. The foetal parts were felt superficially and F.H.S. were present. There was slight tenderness over the abdomen. The striking features here also were high disposition of the foetus, absence of uterine outline and Braxton-Hicks contractions.

Vaginal examination revealed a long and closed cervix. Foetal parts were felt high up. Pelvis was adequate.

A probable diagnosis of abdominal pregnancy was made. The reports of A.P. and lateral view of plain X-ray abdomen and pelvis were equivocal. The foetus was seen high up with breech presentation and the foetal spines were lying close to the maternal spine. Hysterography showed the outline of about 14 weeks' size uterus and the rest of the foetal sac partly (Fig. 1).

The patient was kept under observation. Her general condition improved by haematinics and blood transfusions. Laparotomy was carried out 15 days after her admission. It revealed an intact sac with organised fibrinous exudate covering it. The sac was ruptured and a live female foetus was taken out. The margins of the sac were attached to the edges of the longitudinal rent on the anterior uterine wall of the previous caesarean section scar. Placenta was attached to the upper and posterior surface of the ute-

rine cavity from where it extended to the omentum. There was no difficulty in separating the placenta which was removed with a portion of the omentum without much bleeding. Size of the uterus was of about 16 weeks' gestation. The tubes and the ovaries on both sides were healthy. Subtotal hysterectomy was done. Peritoneal cavity was cleaned, the sac was excised and abdomen closed.

The apgar score of the baby was five at birth. It weighed 1.9 kg. There was no apparent congenital abnormality. Baby died after 18 hours of birth. Postmortem examination could not be done.

The patient made an uneventful recovery and was discharged on the 12th postoperative day. Seen again after six weeks the patient was found to be in good general condition.

Discussion

The earliest case of advanced abdominal pregnancy was reported as early as one thousand years ago by Albucasis quoted by O Francis in 1963, but a case of secondary abdominal pregnancy resulting from the rupture of a gravid uterus was probably first described by the famous anatomist Barengario de Carpi in 1935 quoted by Narayan Rao and Raju in 1963.

Eastman in 1956 calculated the incidence to be 1 in 15,000 pregnancies. Dixon and Stewart (1960) found it to be 1 in 930. While the cases of secondary abdominal pregnancy on the whole are rare, only few cases have appeared in the literature where advanced abdominal pregnancy has occurred following primary uterine gestation.

We encountered three cases of secondary abdominal pregnancy in six years time from Jan. 1965 to Dec. 1970. In this period there were 17,320 deliveries in our unit. Our incidence thus works out to be 1 in 5,773. Of the three cases, one resulted from a primary tubal gestation and two followed the rupture of a previous classical caesarean scar. Badawy (1962)

reported a case of secondary abdominal pregnancy after rupture of the posterior uterine wall, with delivery of a live foetus. Eastman has quoted four cases of E. K. King where slow separation of a previous caesarean scar resulted in secondary abdominal pregnancy. Naidu (1960) reported a case following rupture of a classical caesarean section scar. Rao and Raju (1963) reported one such case resulting from silent rupture of a classical caesarean scar where a living child was taken out by laparotomy. They also reported one case of secondary abdominal pregnancy following rupture of a myomectomy scar. Subhadra Devi (1961) reported a case where advanced abdominal pregnancy occurred following rupture of the posterior wall of the uterus due to previous Haultain's operation.

More recently, Tan *et al* (1971) reported a case of recurrent abdominal pregnancy. The first resulting from the escape of an embryo through a rent in the uterine fundus and the second following the rupture of the previous scar. All types of interesting reports are available where embryonic sac escaped from the uterine rent and had grown in the abdominal cavity. The approximate time when such an escape occurred from the uterus is not described in individual cases. In our two cases the rupture occurred at approximately 14-16 weeks' of gestation, when there was passive stretching of the uterus. Vague abdominal pain and vaginal bleeding at that time were suggestive of it.

The condition poses problems both in diagnosis and management. Diagnosis becomes easy if such a possibility is kept in mind, particularly in women with the history of a previous caesarean section, myomectomy or even perforation during a curettage. Abnormally high foetal disposition, absence of Braxton-Hicks con-

tractions and negative pitocin test are diagnostic of the condition. Abdominal pain and vaginal bleeding in early part of pregnancy must be reviewed carefully.

Management lies in laparotomy as soon as the condition is diagnosed making arrangements for blood transfusion. Waiting for few weeks in the hope of gaining on the foetal maturity is universally denied as the chances of foetal survival are very poor. Foetal mortality of 60-90% has been reported by Ware in 1948.

The problem of placental attachments is not as great in this type of secondary abdominal pregnancy as in cases resulting from primary tubal gestations. Here the placenta is already in the uterus and the disruption of the pregnancy takes place at a slightly later age than that of tubal pregnancy. In both of our cases removal of the placenta did not present much difficulty.

Abdominal hysterectomy should be done wherever possible because the tear in the uterus no matter how carefully it

is stitched remains a vulnerable spot for subsequent rupture. Leaving the potentially infected uterus behind also increases the chances of postoperative infection and morbidity.

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See Fig. on Art Paper XII