

## SECONDARY ABDOMINAL PREGNANCY

## REPORT OF A CASE IN A BANTU FEMALE

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It is well established that the fertilised ovum may become implanted not only in the uterus, but in the fallopian tube or in the ovary; whether its implantation upon the peritoneum as a primary event can occur has been discussed but never proved. It is known, however, that secondary abdominal pregnancy occurs, and then it always is secondary to a tubal pregnancy.

When the ovum lodges in the fallopian tube it is always the result of an accident. The predisposing factors comprise many mechanical conditions relating to the tubes and some authorities include anomalies of the fertilized ovum in the etiology of tubal pregnancy. A tubal gestation may terminate in many different ways but we are now concerned only with the event where the ovum escapes from its cramped surroundings and pursues its development under more favourable conditions. This usually follows an external tubal haemorrhage and spontaneous tubal rupture.

Rupture of the fallopian tube may be intraperitoneal, with haemorrhage into the abdominal cavity resulting in death from haemorrhage or in (a) retro-uterine or pelvic haematocoele with death of the foetus, (b) secondary tubo-abdominal pregnancy, or (c) secondary abdominal pregnancy.

Rupture of the tube may also be extra-peritoneal and here there may be death of the foetus and broad-ligament haematoma, or the foetus may survive and an intra-ligamentary pregnancy may occur.

For the purposes of this discussion we shall consider secondary abdominal pregnancy only where intra-peritoneal rupture or tubal abortion has occurred. This usually results when the muscle and peritoneum of the fallopian tube has been eroded and the external boundary of the ovum is composed only of trophoblast and fibrinous tissue. The distension of the tube caused by the growing foetus and the eroding action of the villi have been the predisposing factors. The commonest time for this rupture to occur is between the 8th and 10th weeks, but it may be earlier or later than this. If the rent which occurs is on the roof or on the sides of the tube, the rupture will involve the peritoneal covering, and the blood effused will be poured out into the general peritoneal cavity. The ovum may or may not be completely expelled with it. Usually when this happens death of the foetus occurs and we are left to deal with a 'ruptured ectopic' as a surgical emergency.

Occasionally, however, the ovum may continue its development. The placenta becomes attached to neighbouring peritoneal surfaces, while layers of lymph are deposited upon the exposed amnion from the surrounding peritoneum, forming a false membrane which constitutes a secondary gestation sac. This

secondary sac becomes further strengthened by adhesion to the neighbouring peritoneal surfaces, including omentum, coils of intestine and the abdominal parietes. And so the gestation sac may be strengthened and the placental blood supply augmented by adherent omentum and mesentery.

The pregnancy may continue to term. The patient then usually passes through a 'false labour,' which is interesting in that, although attended by severe cramp-like pain, it is not associated with uterine contractions. This false labour always leads to the death of the foetus, but why this should be is unexplained.

If the foetus is retained within the abdominal cavity and the gestation sac remains uncomplicated by infection or haemorrhage, eventually the foetus shrinks by absorption of its fluid constituents. Upon the dried tissues lime salts become freely deposited, converting it into a lithopaedion.

*Clinical Features.* The recognition of this condition presents considerable difficulties. The history of the pregnancy usually has some abnormal features such as attacks of lower abdominal pain in the early months, accompanied by some haemorrhage. When the ovum survives a tubal rupture the amount of internal bleeding appears to be inconsiderable and the accompanying symptoms of a ruptured ectopic are usually less urgent.

On examination, if the pregnancy is well advanced it will be found that the cervix is barely soft and the uterus is small and displaced by a mass which is distinct from it.

## CASE HISTORY

C.M., a Native female aged 34 years, was admitted to hospital on 15 September 1956. She complained of severe lower abdominal pain associated with vaginal bleeding, which had been present for the past month. The last menstrual period had been in June. At no time previous to the onset of her symptoms had there been an acute abdominal episode and she had never fainted or vomited. As far as she was aware no products of conception had been passed vaginally.

She had had 5 pregnancies, 3 of which had proceeded to full term and 2 had been abortions in the early months of pregnancy. Only one child was alive, aged 15 years. The last pregnancy had been a full-term one, the child having been born in November 1955 and died at the age of 3 months from gastro-enteritis.

The patient was found to be an extremely ill, thin woman with a temperature of 102° F. She was very anaemic, with a dark-brown haemorrhagic vaginal discharge. Vaginal examination at this stage was difficult, owing to board-like rigidity of the lower abdomen. The findings, however, were a hard cervix with no fullness in either fornix or in the pouch of Douglas; the cervix was not tender on movement; the fundus of the uterus could not be felt.

Although a ruptured ectopic pregnancy was considered, it was thought to be unlikely in view of the history and physical signs elicited. The most likely diagnosis appeared to be a lower abdominal inflammatory lesion.



Owing to the patient's general condition surgery was considered unwise. Restorative and antibiotic therapy was instituted. She was given a transfusion of 2 pints of blood, but she remained anaemic and ill. Ten days after admission it was possible to establish the following facts:

A small non-pregnant retroverted uterus was palpable. Separated from the fundus of the uterus by a sulcus of approximately 1 inch in width was a fairly hard mobile mass, measuring 6 by 3 inches, with its long axis lying transversely. The relationship of this mass to any other organ could not be established. The diagnosis remained obscure. The patient's condition remained too poor to permit of operative interference until, after a further period of restoration, she underwent a laparotomy on 6 October.

At operation about 200 c.c. of free blood was found in the peritoneal cavity. Slightly to the right of the mid-line, attached to loops of jejunum and covered by adhesions, was a tubular mass, greyish-blue in colour. On closer inspection a gestation sac and placenta was seen. In endeavouring to separate the sac from its surrounding structures the covering membrane was ruptured and a foetus of about 16 weeks gestation, attached by its umbilical cord to a posteriorly situated placenta, was found.

In attempting to separate the mass from its attachments haemorrhage was caused by inadvertently tearing portions of placenta. It was therefore considered that the only way in which to proceed was to remove the gestation sac and foetus by ligation of its cord. The placenta was left *in situ* and haemorrhage was controlled by packing and ligation of obvious bleeding vessels. Inspection of the uterus, tubes and ovaries revealed no abnormalities. Eventually the bleeding was completely controlled and the abdomen closed without drainage.

Throughout the operation the patient received blood transfusion. Her immediate post-operative condition was extremely poor and it was feared that she would not survive. However, possibly owing to the fact that she had become fairly well compensated to an anaemic state, she not only survived but improved rapidly. She had no post-operative upsets and was discharged from hospital on the 10th post-operative day, to all intents and purposes perfectly fit, although still anaemic.

## DISCUSSION

This case presented the clinical features of a secondary abdominal pregnancy, but they were not realized. Owing to the fact that the patient continued to bleed *per vaginam* and that a mass was present in the hypogastrium operative interference was considered a necessity. It is possible the pregnancy may have continued if left alone. However, in view of the continued vaginal bleeding, it may be argued in retrospect that the foetus was dead. As the pregnancy had obviously become complicated by infection, the method of dealing with this particular case appears to have been justified.

Complete removal of the placenta in these cases is dangerous, owing to the close attachment to surrounding structures, and the likelihood of causing uncontrollable haemorrhage or a fistula is very real. The placenta is best left alone. Apparently the placenta is always absorbed, at times taking as long as 2½ years in the process. A complication which may be expected is adhesion formation leading to intestinal obstruction.

## SUMMARY

A case of secondary abdominal pregnancy is described and the pathology and clinical features of the intra-abdominal type is discussed. The treatment adopted in this case is also briefly outlined and discussed.

## REFERENCE

- MacLeod, D. H., and Read, C. D. (1955): *Gynaecology*, 5th ed., pp. 178-206. London: Churchill.