ANGULAR PREGNANCY

(2 Case Reports, and Review of Literature)

by

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According to Munro Kerr (1948) angular pregnancy is the fourth most frequent abnormal site of implantation. Rosario *et al* (1967) found only one case (0.78 per cent) of this variety in a total of 129 cases of ectopic pregnancies. In this paper 2 case reports of angular pregnancy are presented, with a brief review of literature on the subject.

CASE REPORTS

Case 1: Mrs. S., 30 year old, Gravida 6, Para 4 was referred from a local hospital with 4 months' amenorrhoea, and severe abdominal pain, more on the right side, of 18 hours duration. The referrel diagnosis was acute appendicitis complicating pregnancy or a ruptured ectopic pregnancy. She had attended the same hospital one week earlier and was diagnosed to be 16 weeks pregnant. The pain was accompanied with vomiting and a fainting attack. No history of vaginal bleeding was obtained. Menstrual History: 4-5/30 days, regular cycles. L.M.P. 4 months ago. Her last delivery was 4 years back.

On admission she had severe pallor (Haemoglobin 6 Gms%), shock and a temperature of 101.4°F. Her pulse rate was 140/mt. and B.P. 100/70 mm. of Hg. There was abdominal distention, tenderness and guarding of the abdomen especially on the right lower abdomen. Vaginal examination revealed a closed cervix with no bleeding. The uterus was soft and extremely tender, enlarged to 14 to 16 weeks of pregnancy. There was fullness in the pouch of Douglas. A provisional diagnosis of ruptured ectopic pregnancy was made. A surgical consultation ruled out appendicitis, and a diagnostic colpocentesis confirmed a ruptured ectopic pregnancy. A laparotomy was performed.

On opening the abdomen, a large amount of clotted and fresh blood was found in the peritoneal cavity. Both the fallopian tubes and ovaries were normal. The uterus was asymmetrically enlarged to 14 to 16 weeks of pregnancy, with a sacculation of the right cornu of 5 cms. in diameter, medial to the round and ovarian ligaments. The placenta was seen protruding through an opening in the uterine wall anteriorly, of 3 cms. diameter. Through the perforation, the remaining pregnancy was removed from the uterine cavity. Exploration of the uterine cavity showed no malformation. A total hysterectomy was performed as there was continued oozing from the uterine rupture. The patient had an uneventful postoperative recovery and was discharged 14 days after the operation.

Case 2: 40 year old, Mrs. S., Gravida 11, Para 7, attended the gynaecology outpatient's department for continuous painless bleeding per vaginam of one month's duration. She gave no history of amenorrhoea or abdominal pain preceding the episode of bleeding.

Menstrual History: 4-5/30 days, normal and regular cycles. The last normal period was 30 days ago.

Obstetric History: She was married for 25 years, with 7 full term normal deliveries. The last pregnancy was 3 years ago, which had been terminated at 3 months of gestation by dilatation and curettage.

On examination the patient was in good health, and not anaemic. Her pulse rate, temperature and B.P. were normal. Abdominal examination

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was also normal. On vaginal examination the os was closed. She was bleeding through the os. The uterus was anteverted, mobile, slightly enlarged to 6 weeks of pregnancy, with an asymmetrical swelling of the right cornu. There was slight tenderness on palpation. The mass was about 4 cms. in diameter. There was no fullness or tenderness in the pouch of Douglas or in the lateral fornices. A provisional diagnosis of a degenerating myoma of the uterus with irregular bleeding was mde. A fractional curettage was performed which was reported as 'proliferative endometrium' and papillary endocervicitis. No products of conception were found in the curettings. The patient continued to have irregular bleedig, and a persistent tender mass in the right cornu of the uterus. A hysterectomy was advised to the patient.

On opening the abdomen, the uterus was slightly enlarged and was distorted by dilatation in the region of the right cornu, 3 cms. in diameter. The uterine muscle was thinned out but intact. There was no blood in the peritoneal cavity. A total hysterectomy and right salpingo-oophorectomy was performed. Fig. 1 shows the specimen of the uterus showing the sacculation of the uterus on the right side, along with the right appendages. On cut section, there was no anatomical defect of the uterine cavity. The sacculation of the uterus was 3 cms. in diameter, and contained degenerated and haemorrhagic material. Histological examination showed a normal right tube with a haemorrhagic corpus luteum in the right ovary. There was necrotic decidua and degenerated chorionic villi in the sacculation of the uterus, thus, confirming the diagnosis of an angular pregnancy.

The patient made an uneventful post-operative recovery and was discharged on the 11th day after the hysterectomy.

Discussion

Pregnancy at the uterotubal junction may be Cornual, Interstitial or Angular. Cornual pregnancy has been clearly defined by Munro Kerr (1948) as a preg nancy in one horn of uterus bicornis, or the rudimentary horn of an abnormal uterus. There is much confusion and speculation of the other two varieties of uterotubal pregnancies. Interstitial and angular pregnancy can be differentiated according to most authors (Kerr and Anderson, 1934; Riddel and Scholefield, 1938; Fahmy, 1944; Hyams, 1953; and McDonald, 1957). The main point of difference being that the fertilised ovum in an interstitial pregnancy develops in the uterine wall (substantia uteri), whereas in the angular pregnancy the ovum develops towards the uterine cavity.

The clinical features of the 3 varieties of uterotubal pregnancies are typical and similar. They are usually characterised by severe unilateral pain, tenderness and sacculation of the uterus, haemorrhage and rupture which usually occurs between 12-20 weeks of gestation. It is only by gross and histological examination that the diagnosis of the 3 varieties can be made.

McDonald (1957) stated that an angular pregnancy has 3 possible ways of termination. (1) Rupture of the uterus with expulsion of the products into the peritoneal cavity. (2) A spontaneous abortion which occurred in Case 2. The abortion was however incomplete, even after a curettage, and no products of conception were obtained in the curettings. The differential diagnosis in such cases with minimal haemorrhage is a degenerating leiomyoma or a twisted ovarian tumour. Case 2 was diagnosed as a leiomyoma as there was absence of pain and amenorrhoea, although tenderness was present over the uterine swelling. (3) The third mode of termination is correction to an intra-uterine pregnancy. When this occurs the placenta may be retained in the sacculation of the cornu, and its removal may prove difficult as reported by Naidu *et al* (192) and McElin and La Pata (1968).

Rupture of the uterus however seems the most frequent mode of termination of an angular pregnancy as reported by McDonald (1957) McNeil (1957), Naidu *et al* (1962) and Mukherjee and Samant (1970) and as seen in Case 1 of the present study. The main differential diagnosis in such cases is tubal pregnancy, cornual pregnancy, appendicitis and spontaneous rupture of the uterine wall in an area of previous operation. It is desirable to differentiate the angular pregnancy from an interstitial one, as the former can be treated with conservation of the uterus, when required.

Summary

Two cases of angular pregnancy are reported. The clinical features, diagnostic problems and management of angular pregnancy are discussed.

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See Fig. on Art Paper VII