FULL TERM OVARIAN PREGNANCY WITH HEALTHY INFANT

by

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The incidence of true ovarian pregnancy has been estimated to be between 0.7 to 1.07 per cent of all ectopic pregnancies (Hertig, 1951). According to Baden and Heins (1952) seventy-five per cent of such pregnancies terminate in the first trimester, 12.5 per cent in the second trimester and 12.5 per cent in the third trimester. Of ninty viable gestations, reviewed by Baden and Heins (1952), 63.3 per cent were stillborn, 36.4 per cent were born alive and 18.2 per cent were grossly deformed.

In the case described below, the patient had an almost uneventful pregnancy followed by delivery at full term, by laparotomy, of a healthy living infant.

Case History

Mrs. H. S., age 32 years, fifth para, was admitted to the Army hospital, New Delhi, on 2nd March 1968, complaining of vague pains and slight tenderness all over the abdomen since the beginning of pregnancy and a slowly increasing painful swelling in the suprapubic area. Her last menstrual period was on 5th June, 1967, and the expected date of delivery was 12th March, 1968. Having come from a village, she had had no antenatal supervision before coming to the hospital and was carrying on with her routine hard domestic duties at home till her date of admission.

She had four full term normal deliveries at home, the youngest child being 2½ years old. There was no history suggestive of any pelvic infection before.

The patient was of average build. Haemoglobin, 12 gms per cent; blood group—O Rh positive. Other routine blood and urine examinations were normal.

The abdomen was uniformly enlarged to the size of a full term pregnancy. A swelling, 10 cms in diameter, was visible in the suprapubic area.

On palpation, the findings suggested a normal pregnancy with the foetus in the longitudinal lie, with the head well engaged in the pelvis. There was slight tenderness over the whole abdomen. The swelling in the suprapubic area was firm and more tender and seemed to arise from the anterior surface of the uterus. After excluding a distended bladder, the swelling was clinically diagnosed as an anterior wall fibroid by the resident medical officer. Since the patient was a multipara with previous normal deliveries and the foetal head was well engaged, the resident medical officer expected a normal delivery and did not do a vaginal examination.

The foetal heart was normal, regular and very distinct.

With rest in bed, the patient felt much better but the vague abdominal pain continued.

On 8th March, 1968, at 10.30 p.m., the patient complained of sudden severe pain all over the abdomen, more marked on the left side. The pain was continuous and the patient was very restless. The whole abdomen was rigid and tender and no uterine contractions were felt. There was no vomiting and no vaginal bleeding. Foetal heart was well heard, regular, rate 140 per minute. The pulse rate was 120 per minute and the blood pressure was 100/60. Clinically, the signs and symptoms suggested concealed accidental haemorrhage.

I did a vaginal examination at 11 p.m. the first vaginal examination since admis-

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paras and 6.5% in multiparous). Jeffecoate (1962) puts the incidence of retroversion during the early weeks of pregnancy at 10%.

The capacity of the uterus to correct its position is remarkable even in the presence of adhesions, which presumably soften and stretch in pregnancy, so that spontaneous correction occurs nearly in all cases. Very occasionally the fundus of the uterus fails to clear the sacral promontary and becomes impacted in the pelvis at the twelfth to fourteenth week. The growing uterus then fills the pelvis displacing the fundus of the bladder upwards and the base of the bladder forwards, resulting in urinary symptoms. Impaction is most likely to occur when the pelvis is small and has an overhanging sacral promontary.

In the case stated above the fundus of the uterus burrowed between the rectum and vagina opening up the rectovaginal space for quite some length. It gradually separated the rectum from the vagina in its middle third, thereby leading to constipation and finally protruded through the vagina after tearing the posterior vaginal wall.

Since the bladder symptoms were not predominant, which usually bring the patient to the hospital, the patient evaded medical aid till the uterus entered the rectovaginal space. The clean cut tear in the vaginal wall without any sloughing is difficult to explain, since presumably the vagina was torn as a result of pressure necrosis by the growing uterine fundus. The entire gravid uterus with the tubes and ovaries was lying outside the vulva upside down without any shock to the patient, nor was there any history of shock at its onset —a remarkable feature indeed.

Regarding the management we feel that no better treatment could have been carried out than what was done in this case. Search of the literature did not help us and we shall be indeed grateful if any of our colleagues can cite some references or forward some comments.

Summary

1. A case of herniation of retroverted gravid uterus through the pouch of Douglas has been described.
2. Literature on retroverted gravid uterus and its complications has been briefly reviewed.
3. More references and comments in connection with similar cases are requested.

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See Figs. on Art Paper VII

The cervix was soft and bulky, completely closed and was almost out of reach, in the anterior fornix. There was what felt like a huge sacculation of the posterior uterine wall, the foetal head occupying the sacculation and lying in the upper vagina.

An extrauterine pregnancy, pushing the uterus forwards almost out of the pelvic cavity, was now strongly suspected and the patient was removed to the operation theatre for immediate laparotomy. Suitable blood for transfusion was arranged.

Operation notes

At 11.50 p.m. under general anaesthesia, the abdomen was opened by a right paramedian incision, the lower end of the incision lying over the supra-pubic swelling. This swelling turned out to be the uterus, enlarged to the size of 14 weeks pregnancy. Immediately behind the uterus was the intact sac, leathery and tense, containing an actively moving foetus. The sac was completely free from adhesions to the omentum or intestines, was dull looking and had a few deposits of fibrin-like material, here and there. The sac was opened by a vertical incision and a female infant covered with meconium was extracted. The foetal head was deeply engaged in the pelvis. The liquor was scanty and full of meconium. After the usual resuscitative measures, the infant cried lustily. It weighed 3.6 Kg. (8 pounds).

As soon as the foetus was extracted, the placenta (Fig. 1) presented itself in the abdominal wound. It looked like a normal placenta and was suspended between the right infundibulo-pelvic ligament and the right ovarian ligament. The blood vessels of the right infundibulo-pelvic ligament were enormously enlarged and were spread out over the outer surface of the placenta. The placenta had no adhesions to the back of the uterus or to any pelvic structures. The right fallopian tube was completely normal, with a long free mesentry and lay across the outer surface of the placenta.

Removal of the placenta was as simple as removing a free ovarian tumour. The blood vessels of the right infundibulo-pelvic ligament were tied individually at the pelvic brim before cutting the ligament. The right fallopian tube and the right ovarian ligament were clamped and cut near their uterine ends and the placenta was removed complete with the opened sac. The left fallopian tube and the left ovary were completely normal.

The whole operation was surprisingly easy and clean. As the patient did not desire any more children, the tube on the left side was ligated and the abdomen closed in the usual manner. No blood transfusion was necessary. The patient made an uneventful recovery and was discharged on the 12th day of the operation. At the time of writing, the infant is a healthy bouncing baby of 20 months. The mother has no complaints and is getting normal periods.

The placenta (Fig. 1) measured 18 x 15 x 4 cms. and weighed 900 grams. The cord was attached near the edge of the placenta. The outer surface of the placenta was covered by flattened ovarian tissue and layers of the right broad ligament containing enormously enlarged branches of right ovarian vessels. The right fallopian tube lay across the placenta.

The membranes were leathery and gray-looking on their outer surface. About 5 cms from the edge of the placenta, three small nodules, separated from each other and resembling ovarian tissue were seen on the outer surface of the membranes. Ovarian tissue was confirmed histologically in these nodules.

Sections were also taken from the outer surface of the placenta which showed compressed ovarian tissue in contact with the chorionic tissue (Fig. 2).

Discussion

The interesting feature of this case was that, except for the vague abdominal discomfort and a painful tender swelling in the suprapubic area, the patient had had no other complaints in her antenatal period. Had a vaginal examination been carried out at the time of admission, a correct diagnosis and a more planned operation may have been possible.

This case fulfils all the criteria for an ovarian pregnancy laid down by Spiegelberg (1878) as amplified by

Norris (1909), Stander (1941) and Rakshit (1964):

(a) The placenta and the foetal sac occupied the position of the right ovary. (b) They were connected to the uterus by the ovarian ligament (c) Ovarian tissue was seen on the surface of the placenta and in the wall of the sac in three places at some distance from each other, (d) The tube, including the ovarian fimbriae, was intact, normal and clearly separated from the ovary and foetal sac. Sections of the tube showed normal histology.

According to Rakshit (1964) if the blood supply of the sac is maintained only by the ovarian and terminal parts of the uterine blood vessels, this should be considered a very positive evidence of ovarian pregnancy. These vessels hypertrophy as the pregnancy advances and maintain sufficient blood supply to the growing placenta and sac. The ovarian tissue and its peritoneal investment help to form the maternal part of the placenta and prevent the invasion of other pelvic organs by the chorionic tissue. The growing ovum can burrow into the substance of the ovary and can have a sort of natural capsule. Adhesions to other organs are therefore not likely to form unless a vascular accident occurs. If there is no vascular accident, as in the case described, the pregnancy can go to term and can be removed en-masse, like removing an ovarian tumour.

Primary ovarian pregnancy may be intrafollicular or extrafollicular. In the intrafollicular variety, the fertilised ovum develops in the Graafian follicle while in the extrafollicular variety the ovum implants and develops in the ovarian tissue other than the Graafian follicle. This implantation may be juxta follicular, interstitial, cortical or superficial. Intrafollicular fertilisation may take place following failure of extrusion of ovum after follicular rupture or an extruded ovum after fertilisation may reimplant itself in its own ruptured follicle or into other parts of ovarian tissue.

Endometriosis and presence of embryonic Müllerian tissue in the ovary have been quoted as fertile soil for reimplantation. In the opinion of Kheng Khoo Tan and Oon Hock Yeo (1968), Oophoritis, with or without thickened tunica albugenia, is a factor in retaining the fertilised ovum in the ovary or corpus luteum.

The case reported here was probably of intrafollicular variety. No luteal tissue was seen anywhere. According to Höhne (1923), presence or absence of corpus luteum is determined by the position in which the ovum becomes embedded. In intrafollicular pregnancy, the corpus luteum is pressed upon and may completely disappear. Similarly there may be complete absence of decidual reaction in the ovarian stroma.

Summary

A case of full term ovarian pregnancy is described. None of the aetiological factors stated to be responsible for ovarian pregnancy could be found in this case.

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See Figs. on Art Paper VIII