

PREGNANCY IN RUDIMENTARY HORN OF THE UTERUS

(A case Report)

by

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Introduction

Rudimentary horn of the uterus is one of the congenital abnormalities occurring in the course of development. Pregnancy in this horn is really a rare occurrence and does not occur as frequently as the text books state. Pregnancy in a rudimentary horn was first described by Mauriceau and Vassal in 1669 as quoted by A. V. Narayan Rao. It has been stated by many authors that rupture in a rudimentary horn occurs at the fourth month of pregnancy (Browne (1963)). An unusual case has been presented here where the duration of pregnancy was six months and was diagnosed incidental to early eclampsia and foetal death.

Case Report

Mrs. K.G., a 22 years old primigravida, married since eight months was transferred on 3-6-71 to Dr. R. N. Cooper Municipal General Hospital, Juhu, from Borivli Maternity Home. She was admitted with history of six months amenorrhoea and convulsions. A provisional diagnosis of eclampsia was made. She was given injection pethidine 100 mg. prior to transfer. She had severe headache and had about ten to twelve convulsions prior to admission.

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Past History

There was no history of convulsions during pregnancy before the present episode, or in the past. No history suggestive of hypertension or renal disease. Her menstrual history was normal and non contributory. There was no family history of epilepsy.

Condition on Admission

The patient was unconscious, not responding to painful stimuli; pupils were small, slightly reacting to light. Tongue was bitten, pulse rate 120 per minute, regular, volume fair; temperature was 33°C, blood pressure 150/110 mm of Hg. Conjunctivae and nails showed pallor but there was no cyanosis.

Systemic examination revealed ejection systolic murmur at the apex of the heart and harsh breathing all over the chest. Central nervous system examination did not show any abnormality.

On examination of the abdomen, uterus was 22 weeks in size, tonically contracted and it was difficult to palpate even the foetal parts.

Vaginal examination confirmed the findings of abdominal examination. Cervical os was tightly closed. Internal ballotment was elicited but was doubtful. Patient had five convulsions within 3 days after admission.

This was suspected to be a case of trophoblastic tumour where early onset of toxæmia of pregnancy is not uncommon.

The following investigations were carried out: Haemoglobin: 8 gm%, bleeding time: 3 minutes 20 seconds, clotting time: 4 minutes and 13 seconds. Urine—loaded with albu-

min, sugar was absent; microscopically there were no casts or pus cells. Fundoscopy showed no abnormality. Electrocardiogram showed left atrial hypertrophy and depression of ST segment. Radiological examination of the abdomen showed foetus with signs suggestive of intra uterine foetal death, which ruled out the possibility of trophoblastic tumour.

Provisional diagnosis of eclampsia with intrauterine foetal death was made.

Treatment

Following was the treatment given. Injection paraldehyde 8 ml. 8 hourly intramuscularly, phenobarbitone 200 mg. 8 hourly 1. M. for the first five days. Injection crystalline penicillin 5 lacs 6 hourly 1. M., Injection streptomycin 1 gm. O.D. was given in addition to Frusemide as diuretic. From the sixth day, patient was sedated with tablet largactil 25 mg. t.d.s. and tablet luminal gr. 1 t.d.s.

In view of the radiological evidence of intrauterine foetal death and failure of the uterus to evacuate its contents in spite of being tonically contracted, it was decided to induce labour. On 25th June laminaria tents were inserted. Twenty-four hours later, pitocin 5 I.U. in 500 c.c. 5% glucose was started and the tents were removed. Daily two drips in increasing strength of pitocin reaching upto 70 I.U. was given but there was no response. Cervical os was still closed and only slight bleeding per vaginam was present.

In view of foetal death and failed induction, patient was taken up for abdominal hysterotomy on 12th July 1971. A subumbilical midline incision was made. Hysterotomy was done by transverse incision and the macerated foetus and placenta were delivered. Retrograde dilatation of cervix for lochial drainage was not thought of as cervix was already dilated with laminaria tents. The uterus was sutured in layers. While taking the second layer it was noticed that the uterus was being filled up with blood and was atonic and flabby. Squeezing the uterus did not reduce its size, hence it was thought that the cervical drainage was inadequate, probably because the cervix was not sufficiently dilated (laminaria tents were introduced 17 days

ago). The sutures were undone and a careful search for the cervical canal was made, it proved unsuccessful. The uterine sound was then passed per vaginam by an assistant through the cervical opening and it was traced in a portion of the uterus which was not connected to the portion from which the foetus and the placenta were extracted. The round ligament and the tube were attached on the lateral side of the pregnant and the non-pregnant horn. The rudimentary horn was then excised and haemostasis was achieved. The tube and the ovary of the side of the pregnant horn was not excised.

Hysterosalpingogram on this patient would have been interesting but unfortunately she did not come for follow-up until she was pregnant again. She is seven and a half months pregnant, she comes for regular check up now (all the way from Bhiwandi) every 15 days and her pregnancy is progressing normally till to-date.

Discussion:

Development of female genital tract occurs by fusion of the two Mullerian ducts. Failure of fusion occurs in varying degrees and depending upon the degree of failure of fusion and development, various maldevelopments ranging from uterus didelphys to bi-cornuate uterus with rudimentary horn are observed.

Should pregnancy occur in the normal horn, it continues to term, and labour may terminate without any abnormal features and the rudimentary horn may go undiagnosed. In some cases the rudimentary horn gets displaced into the pouch of Douglas and causes obstruction to the passage of the child.

Should the pregnancy occur in the rudimentary horn it may terminate in either (i) rupture, (ii) torsion or (iii) pregnancy may go to term.

The time of rupture depends upon how rudimentary the horn is, for the more rudimentary the horn, the lesser it will be

resistant to the chorionic villi and to distension. Generally it occurs after eight or tenth week and sometimes it may go to term with or without the death of the foetus. In 1951 Scholtz reported a living full term delivery by caesarean section for toxæmia, postmaturity and vaginal bleeding. Another case reported by Serejni-Koff in 1898 of a living child delivered from a rudimentary horn. The child died 6 hours after birth.

It is very difficult to diagnose pregnancy in a rudimentary horn preoperatively. In Kehrer's series, 20% cases were diagnosed preoperatively and in 2 of the 22 cases of Latto Norman's series, preoperative diagnosis was correct. In early months it has to be differentiated from ectopic pregnancy. The diagnosis of an advanced case is even more difficult as the rudimentary horn with foetal sac displaces the normal uterus and fills up the whole abdominal cavity. The symptoms and signs resemble those of the abdominal pregnancy. The absence of the characteristic superficial palpation of the foetal parts may lead to a suspicion of pregnancy in a rudimentary horn. Exact diagnosis is made at laparotomy. Round ligament joins the outer side of the gestation sac in cases of rudimentary horn pregnancy whereas in cases of tubal pregnancy it lies on the inner side of the enlarged tube.

The illustration shows relationship of rudimentary horn to the normal horn. The connecting band is seldom canalised. Piquand affirmed in 1910 that there is a canal in 15% cases and is only observed when the uterus approaches the bicornis unicollis type.

In cases in which there is no canal, impregnation occurs by the spermatozoa passing through the normal half of the uterus and tube and impregnating an

ovum which has been shed from the ovary connected with the rudimentary horn. In a few cases an ovum from the other ovary has been impregnated as the corpus luteum has been discovered in the ovary connected with the normal horn. The fertilised ovum gets embedded into the rudimentary horn where it grows and develops.

The treatment consists in removal of the gravid horn. The ovarian vessels are ligated in the infundibulopelvic ligament and then the band connecting the horn with the other half of the uterus is secured.

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See Fig. on Art Paper III