

TORSION OF GRAVID UTERUS CAUSING DELAY IN THE DELIVERY OF THE SECOND TWIN

(A Case Report)

by

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Axial rotation of gravid uterus is a rare phenomenon. A review of literature reveals that only 116 cases were reported up to the end of 1966. The rarity of the condition prompted report of this case.

Survey of Literature

First case of torsion of uterus occurring in cattle was described by Columbi in 1662. Labbe, in 1878 reported the occurrence of torsion in the human gravid uterus. Up to 1931 there were some sporadic reports about the condition in American as well as in British literature. Subsequently Duvall (1931), Nesbitt and Corner (1956) have given exhaustive reviews of all cases reported up to that date, and added their own. In the reviews so far published very few lines were written on symptomatology. Hence more attention is paid to this aspect in the present survey, so as to assist the clinician in the diagnosis.

Pathogenesis

Normally the gravid uterus possesses some amount of mobility as its upper portion projects into and lies

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free in the peritoneal cavity while its lower pole is held in check by its cervical attachments. As the uterus grows out of the pelvic cavity it rotates slightly to the right so that its left margin is directed a little anteriorly due to the presence of the pelvic colon on the left side. Some authors believe that the dextro-rotated position of the gravid uterus is only an exaggerated state of the non-gravid uterus. According to Harold Henderson, axial rotation of 30° may be considered as physiological and only when the degree of torsion exceeds this figure and approaches 180° or more, does it give rise to severe symptoms. In literature, cases of torsion of 90 to 540 degrees (Eastman 1934) have been reported. Dextro-rotation of the uterus is more common than laevo-rotation.

Aetiology

Robinson and Duvall (1931) stated that "without uterine abnormality, there can be no torsion". Jeffcoate is of the opinion that "torsion of uterus, pregnant or nonpregnant, could occur only when the uterus is asymmetrical, either due to the presence of a tumour or due to mullerian fusion deformity." Lax abdominal and uterine wall, diastasis recti, asthenia, mecha-

nical movements of uterus, transverse foetal lie, post-operative adhesions (after myomectomy or ventro-fixation of uterus), were some of the predisposing factors which caused torsion in the gravid uterus.

Torsion is described as primary when the cause is in the uterus, and secondary when it occurs due to post-operative adhesions or other causes.

Signs and Symptoms

The diagnosis of uterine torsion has almost always been detected either at laparotomy or at post-mortem. In very few cases it is diagnosed before operation.

Torsion of the gravid uterus can occur in the early or in the later weeks of pregnancy or during labour. In the early months, symptoms akin to acute abdominal catastrophe, like shock and abdominal pain characterise the condition. Recurrent attacks of abdominal pain bring these patients to the hospital. Majority of such cases occur in the younger age group and are mostly primigravidae.

Fulminant cases are those which occur in the third trimester of pregnancy. Here the patient is usually a multiparous woman, belonging to the older age group, who comes to hospital suddenly seized by a severe attack of abdominal pain.

In labour, torsion of the uterus should be thought of in all patients who have a non-progressive type of obstructed labour without any obvious cause. However, if the obstetrician makes an attempt to palpate the round ligaments, this condition can be suspected.

In a certain percentage of cases uterine torsion is asymptomatic. The condition can then be confirmed only at laparotomy.

Mortality

According to Mitchell and Garrett this condition carries 14% maternal and 46% foetal mortality.

Treatment

If diagnosed early, manual correction of the uterus can be attempted, but with doubtful results.

In labour, laparotomy is the treatment of choice. If this condition is not recognised at operation, there is a great danger of haemorrhage due to the involvement of the uterine vessels, and in neglected cases, it might result in gangrene.

Case Report

Patient, aged 35 years, was admitted at Government Maternity Hospital, Hyderabad, on 3-4-66 at 1.30 P.M. with a history of delivery of first of the twins at home the same day at 6 A.M., and retention of the second twin in utero.

She was a 5th gravida and 4th para. with history of all previous full-term normal deliveries and with two living children. The other two children died during infancy.

Condition on admission

Patient's temperature was 99.6° F., pulse 136 per minute and blood pressure was 120/80 mm of Hg.; tongue was slightly coated but moist. Patient did not show any signs of toxæmia.

Local examination

Height of the uterus corresponded to 32 weeks' gestation. Uterus was contracting once in 5 to 6 minutes, each contraction lasting for 10 to 15 seconds. Foetus was in left occipito-transverse position. Vertex was not engaged. Foetal heart was regular at 124 per minute. Vaginal examination show-

ed a cervix partially effaced $\frac{1}{4}$ " long and quarter dilated. Membranes were absent. Foetal head was felt above the pelvic brim and was not engaged. Vaginal discharge was not foul smelling. The estimated weight of infant was $4\frac{1}{2}$ lbs.

Treatment

Patient was sedated with pethidine, 100 mg.

Prophylactic antibiotics were given and an intravenous drip containing syntocinon, 1 in 5,000 dilution (physiological concentration), was started, 30 drops per minute.

The house surgeon and nursing staff were instructed to record maternal pulse and foetal heart half-hourly. The patient's condition was reassessed after 3 hours by the head of the unit. The patient's general condition deteriorated. The pulse rate rose from 130 to 140 per minute and temperature from 99.6°F to 101°F .

There was no change in the local condition. Uterine contractions became feebler and foetal heart remained regular, about 130 per minute. As the patient started complaining of severe pain in the back, the syntocinon drip was discontinued, considering it as a case of hypertonic uterine inertia. The patient was sedated with $\frac{1}{4}$ grain of morphia, and 5% glucose infusion continued. The case was re-examined after 3 hours i.e. 6 hours after admission. There was no progress in labour; on the other hand patient's general condition started deteriorating. It was decided to take her up for abdominal delivery.

After opening the abdomen, the left round ligament presented itself on the right side of the abdominal incision. From the position of the ovarian ligament, it was recognised as the left round ligament. The right round ligament was posterior and to the left of the middle line. Adnexae were congested. Uterus was dusky-red in colour. Uterus was found to have undergone a torsion of 215° on its axis. Torsion was corrected by turning the uterus to the left. Lower segment caesarean section was performed and a live female infant weighing 5 lbs was delivered. Abdomen was closed in layers. Patient's post-operative period was uneventful.

Discussion

Out of 117 cases of torsion of gravid uterus reported in literature, only 17 occurred in labour. This case under discussion is one such.

From the history of the case it appears that torsion occurred after the delivery of the first twin. The uterine action which was efficient till the delivery of the first baby became tardy for no reason, and the progress of labour came to a stand still. Labour did not progress despite stimulation with syntocinon. What could have precipitated the uterine torsion in this interval is the question.

The first delivery was conducted at home by an untrained midwife, who probably got worried when placenta failed to separate, and must have adopted some manual and crude methods to express it. This vigorous attempt might have resulted in the uterine torsion.

Lax uterine and abdominal wall must have predisposed to the accident. It can be presumed that axial rotation of gravid uterus can be classed as one of the important causes of obstructive type of labour. If attention is paid to the palpation of the round ligaments during physical examination, this condition can be suspected before operation in many cases.

Summary

Primary torsion of uterus, complicating a case of multiple pregnancy in labour has not been reported so far in literature. The cause of torsion is probably the mismanagement of the supposed 3rd stage of labour by the untrained midwife.

2. Literature has been reviewed for a better appreciation and understanding of the subject.

3. In all cases of non-progressive labour, torsion of uterus should be thought of.

4. If an attempt is made to palpate the round ligaments as a routine, at least in a few cases torsion of uterus can be diagnosed before operation.

5. If the condition is not recognised at laparotomy there is a great danger of haemorrhage from involvement of uterine arteries.

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