ACUTE INVERSION OF THE UTERUS IN A PRIMIGRAVIDA

by

D. K. Roy*, M.B.B.S., D.G.O. (Cal.), M.R.C.O.G. (Lond.)

Inversion of the uterus is so rare that many obstetricians hardly ever see a case. The average incidence of the condition is about 1 in 30,000. Das has reported that the average incidence in Great Britain is 1 in 27,992; in American hospitals 1 in 23,127; in Indian hospitals 1 in 8,537. This is the first case recorded in Plaistow Maternity Hospital where the total number of deliveries from 1948 to October 1961 was 15,483. The object of this paper is to report this case of acute inversion of the uterus which occurred spontaneously in a primigravida after the expulsion of the placenta.

Case Report

Mrs. B. C., aged 21 years, primigravida. L.M.P. 25-1-61. E.D.C. 1-11-61. Normal ante-natal period. Hb 86% at booking at 13 weeks of pregnancy, and again checked at 34 weeks was 77%.

She started labour at 11-30 p.m. on 28-10-61 and was admitted at 12-15 a.m. on 29-10-61. On examination B.P. 110/76 mm. Hg. Vertex engaged L.O.A. Foetal heart sounds regular.

Examination per vaginam revealed: Cervix—taken up. Os 2 fingers dilated. Membranes intact. Vertex presenting at the level of the ischial spines. Pelvis adequate.

The cervix was fully dilated at 9-15 p.m. The patient was delivered of a male child at 10-40 p.m., 29-10-61. An episiotomy was needed. Injection of ergometrine 0.5 mgms. was given intramuscularly with the birth of the anterior shoulder. After 10 minutes the placenta and membranes were expelled spontaneously by natural effort without assistance. After the birth of the placenta there was a sudden and severe post-partum haemorrhage of about 4 pints. A second injection of ergometrine 0.5 mgms. was given and medical aid was summoned.

On examination the patient was shocked. Pulse was difficult to feel, B.P. 70/40 mm. Hg. The fundus could not be palpated. Injections of pitocin 5 units and morphine grs. 1/4 were given. Blood was sent for cross-matching and one bottle of group O Rhesus negative blood (uncross-matched) was started. As she continued to bleed it was decided to apply bimanual compression.

On examination per vaginam a pear shaped mass was felt and at the upper end of the mass the cervical ring was detected. A complete inversion of the uterus was diagnosed. The blood pressure was now difficult to record. As the patient was still bleeding, it was decided to replace the uterus under general anaesthesia. Manual reposition (taxis) was done—replacing the part nearest to the cervix first and fundus later on. Another injection of ergometrine 0.5 mgms. was given intravenously.

After the uterus was replaced and with a further transfusion of 2 pints of blood and 2 bottles of plasma the general condition of the patient improved. Radial pulse could be felt and B.P. 100/70 mm. Hg. A further 2 bottles of blood were transfused and the blood pressure rose to 120/80 mm. Hg.

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* *Plaistow Maternity Hospital, London.*
Present address:
Deputy Visiting Surgeon, Chittaranjan Cancer Hospital, Calcutta and Visiting Surgeon, Sri Sri Balananda Brahmachari Matri-Sevasadan, Behala, Calcutta.

The placenta was found to be complete and the membranes almost equal on each side suggesting a fundal attachment. Length of the umbilical cord was 11 inches.

Duration of labour, 1st Stage 21 hours 45 minutes; 2nd Stage 1 hour 25 minutes, and 3rd Stage 10 minutes.

The episiotomy was repaired on the next morning. Injections of Penicillin 500,000 units with Streptomycin 0.5 gm. were given twice daily for 5 days. Puerperium was uneventful excepting slight pyrexia up to 99°F. for 4 days. Lactation was well established and urinary output was good. Hb was found to be 74% on the 4th day of the puerperium. The patient and the baby were discharged in good condition on 14th day.

Discussion

It is said that in about 4/5ths of the cases of inversion of the uterus some error of management is responsible—either pulling on the cord when the placenta has not separated or improperly applied Crede expression. The modern tendency to cord traction should never be attempted when the uterus is relaxed. Das reports that 75% of spontaneous inversions are due to fundal insertion of the placenta. According to McCullagh, the increased local vascularity produced by fundal attachment so undermines the muscle fibres and destroys the tonicity—that resulting weakness produces inversion. It is thought that in this case short cord and the fundal attachment of the placenta were responsible for the spontaneous inversion.

According to McCullagh nearly 50% of cases occur in primiparae and this case also falls into that category. In this case the labour was not prolonged (first stage and second stage lasting only a total of 23 hours 10 minutes).

Profuse haemorrhage and profound shock were the outstanding features of this case. Haemorrhage occurred after the separation of the placenta. In spite of two injections of ergometrine and one injection of pitocin the bleeding was not controlled—probably inversion interferes with the uterine retraction. Abdominally, though the fundus of the uterus was not felt, cup-shaped depression could not be demonstrated. Spain could not detect any cup-shaped depression even on a thin patient.

The treatment in such cases depends on the amount of shock, the degree of haemorrhage and the time of detection. Immediately after its occurrence, in cases unaccompanied by symptoms of shock and collapse, manual reposition even without an anaesthetic, unless one is available immediately, has yielded the best results. In such cases if the placenta is still attached, it should not be removed unless it is partially separated or the cervical ring is narrow. When the patient is already shocked, no attempt should be made to re-invert the uterus until the shock is combated. But in this case, the bleeding forced us to replace it under anaesthetic after taking necessary steps to resuscitate the patient. O'Sullivan's Hydrostatic method may also be the treatment of choice in such cases as it is less likely to cause further shock.

Prognosis. Acute puerperal inversion is a condition of immediate and great peril. The earlier it is recognised and treated, the better will be the outcome. Various authors put the mortality rate between 15 to

70%. McCullagh (1925) reported a 25% mortality; in Das' series it was 13.2%. Of the 12 cases treated by O'Sullivan, 3 were fatal. Probably the easy availability of blood now-a-days has reduced the mortality rate.

Summary

A case of acute puerperal inversion of the uterus in a primigravida is reported.

Inversion was spontaneous, a short cord and fundal attachment of the placenta being thought responsible for it.

Profuse haemorrhage and profound shock were the outstanding features of this case. Haemorrhage was not controlled in spite of two injections of ergometrine and one injection of pitocin.

It is recommended that when the patient is bleeding, normal reposition or the hydrostatic method under an anaesthetic should be attempted after taking the necessary steps to resuscitate the patient.

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