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ACUTE INVERSION OF UTERUS – A CASE REPORT

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INTRODUCTION: Acute inversion of uterus is a rare but life-threatening complication of the third stage of the labour. The incidence varies widely between 1 in 2000 to 1 in 50,000 deliveries, largely dependent upon the standard of care of third stage of labour. It has been known as early as 2500 B.C as stated in a historical review by Das (1940). This says that there are passages in Ayurvedic literature (2500-600 B.C) which suggests that inversion was known to Hindus. It was Hippocrates (460-370 B.C) who is first credited to have recognized an inverted uterus.¹

CASE REPORT: 25 years old P₃L₃ was referred from periphery with a h/o delivering a live male baby of 3.4Kg at 11pm on 30.03.2014 at a local hospital, where she collapsed due to heavy bleeding and sent to a CHC, from there she had been referred to us at P K Das Institute of Medical Sciences with the h/o Post-partum haemorrhage and mass per vaginum. When the case was first seen at the labour room she was in shock with B.P 90/60 mm of Hg and PR= 114beats/min. Pallor ++, per abdomen finding revealed no palpable uterus. Per vaginal examination showed a boggy mass protruding in to the vagina seen at the introitus. Hence the diagnosis of acute inversion of uterus complete variety was made.

Wide bore cannulae inserted and patient was resuscitated with crystalloids and colloids and cross matched blood was obtained and started transfusion. Meanwhile attempts were made to reposition the uterus by manual and hydrostatic (O Sullivan method) but efforts failed due to the tight constriction ring of cervix over the prolapsed uterine fundus. Hence we resorted to abdominal method under General Anaesthesia. Laparotomy was done classical flower vase appearance of inversion i.e. fundus along with the infundibula-pelvic, round ligaments and ovaries were pulled in to the crater of inversion. Haultains method – incision given on the posterior aspect of the constriction ring followed by withdrawal of the fundus using Allis forceps as gentle stepwise manner done. Later the incision which is vertical was sutured. Post-operatively she received 2 pints of packed cells and other routine post –operative care and she was discharged on 7th POD with uneventful recovery.

DISCUSSION: A classical portrayal of inversion of uterus is given by Giffard, William (d. 1731). Cases in midwifery. Edited by Edward Hody (1698?-1759). London: B. Motte and T. Wotton, 1734.

The child was born about an hour before I came, and the midwife in attempting to bring away the placenta, had inverted the uterus; for upon examination, I found the whole body of the uterus with the placenta, adhering to the fundus, hanging out beyond the labia; there was a great profusion of blood, and the women was dead before I came... This case should be a caution to all practitioners how they attempt to bring away the placenta, and not to pull the string

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too rudely, lest they invert and draw out the uterus, by which the women dies a martyr to their temerity and ignorance, as was too plainly the case in the precedent observation.

There are various classifications of uterine inversion.

1. Acute inversion; occurs within 24 hours of delivery.
2. Sub-Acute; after 24hoursbut before 4 weeks of delivery.
3. Chronic inversion; after postpartum or 4weeks or in non-pregnant state.

Types:

1. Incomplete inversion occurs when the fundus of the uterus has turned inside out, but the inverted fundus has not descended through the cervix.
2. Complete inversion occurs when the inverted fundus has passed completely outside the cervix to lie within the vagina or less often, outside the introitus.

Uterine inversion is sometimes described in degrees:

- 1st degree = incomplete inversion
- 2nd degree= complete inversion in the vagina
- 3rd degree =complete inversion outside the introitus.

Causes: For the uterus to be inverted it must be relaxed and this along with fundal insertion of placenta, are important predisposing factors. Additional factors are as follows:

Mismanagement of third stage of labour involving fundal pressure and or cord traction before placental separation and while the uterus is still relaxed.

This can be implicated in the majority of cases. When reviewing a series of cases of acute uterine inversion to establish the causes Munro Kerr (1908) wrote:

In examining them it is very evident that in the majority of cases the occurrence has fallowed pressure from above or traction from below... in looking over the series I was not a little surprised at the large proportion of cases in which traction on the cord was the cause.

Abnormally short umbilical cord or functionally shortened by being wrapped around the fetal body can, in theory, cause the fundus of the uterus to be pulled inside-out by traction on the cord as the fetus delivers. This is extremely rare.

Placenta accrete is a rare cause.

Manual removal of placenta when separating a retained placenta from the uterine wall a portion may remain attached and as the placenta is withdrawn so too is the fundus of the uterus. This occurs with those who routinely undertake manual removal of the placenta at the time of cesarean section before the uterus has contracted.

Connective tissue disorders, such as Marfan's syndrome can predispose to acute uterine inversion.

Clinical Presentation: The diagnosis may be obvious and dramatic with a large boggy mass appearing at the introitus, with or without placenta attached. While this is the most dramatic presentation this is also the least common. Other signs and symptoms are as follows:

Severe and sustained hypogastric pain in the third stage of labour.

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Shock that is initially out of proportion with apparent blood loss, due to the infundibulo-pelvic and round ligaments, ovaries and associated nerves being pulled into the crater of the inversion which provides a strong vaso-vagal stimulus. Thus, the women often become pale, profound hypotension and even, on rare occasions, cardiac arrest. Within a short time, in the majority of cases, there is also a marked haemorrhage and hypovolemic shock.

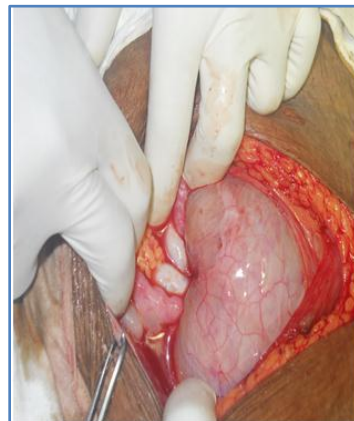
With complete inversion the uterus is not palpable per abdomen and the inverted fundus is either obvious at the introitus or on vaginal examination. In cases of incomplete inversion, however the fundus of the uterus may appear to be normal and only in thin women it is possible to feel the fundal dimple of the partial inversion.

Whatever the method of uterine replacement is used it should be followed by an oxytocic infusion to keep the uterus contracted for 8-12 hours. After the initial use of I.V oxytocin to contract the uterus there is much to be said for using longer acting prostaglandins, such as 15-methyl PGF₂Alfa or Misoprostol.

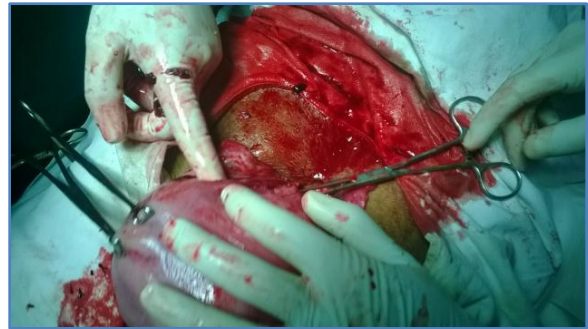
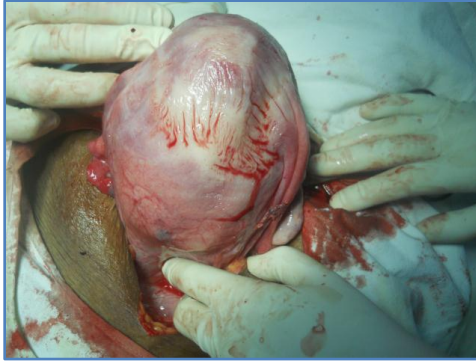
A broad spectrum antibiotic should be given for 24-48 hours because of the manipulation and the large uterine surface area exposed to the vaginal bacterial flora.

Should acute inversion occur in a setting without anesthetic facilities, replacement will have to be undertaken with a combination of I.V Narcotic, inhalation analgesia and combined pudendal and para-cervical block, as available and feasible. If manual replacement cannot be achieved O Sullivan hydrostatic technique should be used.

Acute uterine inversion presents a distinct risk of maternal death, particularly if facilities for anesthesia and replacement are not available. It is almost completely preventable with careful and appropriate management of third stage of labour.



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REFERENCES:

1. Hankins G, Clark SL, Cunningham FG, Operative Obstetrics, 1st ed, 1995.
2. Haultains FWN, Treatment of Chronic Uterine Inversion by Abdominal Hysterotomy, with a Successful Case. BMJ1901; 2: 74-76.
3. O Sullivan JV. Acute inversion of the Uterus. BMJ1945; 2: 282-284.
4. Baskett TF, Acute Uterine inversion. A Review of 40 cases. J Ostet Gynecol Can 2002; 24: 953-956.
5. Rachagan S P, Sivanesaratnam V, Cock KP, Raman S. Acute puerperal inversion of the uterus- an obstetric emergency. Aust NZ J Obstet Gynecol 1988; 28:29-32.

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