

# CASE REPORT

## UTERINE INVERSION: A CASE REPORT

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### HOW TO CITE THIS ARTICLE:

Atima Bharti, Seema Kumari, Shashi Bala Singh. "Uterine Inversion: A Case Report". Journal of Evolution of Medical and Dental Sciences 2015; Vol. 4, Issue 31, April 16; Page: 5417-5420, DOI: 10.14260/jemds/2015/793

**INTRODUCTION:** Inversion of uterus is a life threatening complication in third stage of labour in which uterus is turned inside out partially or completely. Incidence varies widely from as many as 1 per 1584 deliveries to 1 per 20,000<sup>1</sup> deliveries. It may be either acute or chronic. Acute inversion occurs immediately after the third stage of labour. The cervix is open and atonic, so fundus passes through it. Acute: within 24 hours of delivery. Subacute: over 24 hours and upto 30<sup>th</sup> postpartum day. Chronic: more than 30 days after delivery. The inversion is classified as chronic if 4 weeks have elapsed before the event.<sup>2</sup> A total inversion usually non-puerperal and tumor related results in inversion of uterus and vagina as well.<sup>3</sup> It may be spontaneous or more commonly induced. Uterine inversion is a life threatening obstetric emergency.<sup>4</sup> We present a case of successful correction of uterine inversion of a primipara by HAULTAIN'S OPERATION.

**CASE REPORT:** A 22yrs old primipara presented in RIMS labour room at midnight with very poor general condition and severe pain abdomen with history of delivery of an alive term male baby of 2.8 kg, 5 hours ago at Sadar Hospital, Hazaribagh and referred from there for post-partum haemorrhage. She was in shock, On general examination, she had severe pallor, blood pressure was 80/50 mmHg, pulse rate was 128/min, on abdominal examination uterine fundus could not be felt, on perineal examination whole of the internal surface of uterus was inside the vagina with a portion of placenta and membranes attached. She was in agony and did not allow for bimanual examination. Diagnosis of uterine inversion made and immediate reposition of uterus was tried in labour room OT under anaesthesia along with resuscitation and tocolytics (nitroglycerine), one unit of blood was in hand but reposition was not successful. Patient was then kept in labour room under observation and reposition by hydrostatic pressure was tried which failed.

Replacement fluids, injectable antibiotics, analgesics were continued, patient was prepared for laprotomy. Laboratory tests showed Hb% 6g/dl total leucocyte count 14,000/mm,<sup>3</sup> Differential count neutrophils 76%, lymphocytes 16% basophils 4%, monocytes 3% and eosinophils 1%. Routine urine examination, liver function tests and renal function tests were within normal limits. Two units of packed cell volume given. On laprotomy, Traction on round ligament was tried to pull out the fundus but as the ring was very firm, attempt was unsuccessful. Inversion was finally corrected by cutting the posterior ring (Haultain 'S Operation). All conservative management failed so this operation was done which is successful in almost all cases. After repositioning, uterine relaxant was stopped and replaced with Oxytocin. Placental bits were removed after reposition. Antibiotics and uterotonics were continued for 48 hours. Monitoring was closely done for re-inversion. Post-operative period was uneventful and discharged on 8<sup>th</sup> day. Called for review after 6 weeks, on follow up uterus was well involuted with no discharge and no complaints. We advised her contraceptive pill and counselled her against conception for a period of three years.

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**DISCUSSION:** Inversion of uterus is a condition where the uterus turns inside out. Though rare but interesting and dangerous. It varies in degree from a mere dimpling of fundus to involvement of the whole uterus. Causes Congenital weakness, precipitate labour, short umbilical cord, mismanaged third stage of labour, fundal pressure by attendant, traction on the cord before placenta separates or when placenta not removed by controlled cord traction. If degree of inversion is severe the whole of the fundus with or without placenta appears outside the vulva. In mild or moderate degree of inversion fundus remains inside the vagina so diagnosis can be made only by doing pelvic examination along with abdominal where dimpling of fundus will be felt. It is one of the complications of third stage of labour and it may cause post-partum hemorrhage, shock and severe pain which can be fatal. Shock may be due to pressure on the ovaries and fallopian tubes which is pulled inside the cervical ring with the fundus. Reason of shock may also be due to cervical distension and traction on peritoneal ligament. Chronic inversion is discovered few weeks or months after delivery. Exposed endometrium is invariably infected and ulcerated. Patient complaints of vaginal discharge and irregular bleeding. Diagnosis can be made by uterine sound. It can be confused with inversion due to pedunculated tumor, one should be very careful while making a diagnosis because the treatment is different, so if overlooked the result can be disastrous.

**MANAGEMENT:** Treatment should follow a logical progression. Aggressive fluid and blood replacement is necessary to correct hypotension and hypovolaemia. Reposition should take preference over resuscitation. Blood loss can be calculated using formula: Loss in ml = (pre delivery haematocrit – pre discharge haematocrit) × 150 ml + ml blood replaced.

Experienced anaesthetic help, resuscitation with blood and crystalloids, immediate uterine reposition and preparing operation theatre for a possible laprotomy are the requisites. Drugs recommended for tocolysis includes magnesium sulphate,<sup>5,6</sup> Nitroglycerine,<sup>7</sup> Terbutaline. Another method of repositioning is hydrostatic pressure first described by O Sullivan in British Medical Journal in 1945. More recently a new technique of hydrostatic pressure has been described.<sup>8</sup> Citing difficulty in maintaining an adequate water seal to generate the pressure required, the authors suggest attaching the intravenous tube to silicon cup used in vacuum extraction. When cup is placed in vagina, excellent seal is obtained leading to correction of inversion. However there has been no discussion of the theoretical risk of air or amniotic fluid embolism.

For treating chronic inversion infection has to be treated by antiseptic packing of the vagina. Occasionally this results in spontaneous cure. If inversion persists then special repositor can be applied.

If conservative management fails laprotomy is required. In both chronic and acute inversion uterine fundus can be lifted by traction on the round ligament at laprotomy. If this fails then replacement requires incision of the constriction ring of the cervix. This can be done abdominally (Haultain's Operation) or vaginally (Spinellio 'S Operation). Abdominal operation commonly is done which was done in our case. Hysterectomy is the last resort if lady has completed her family.

**COMPLICATIONS:** Endomyometritis and damage to intestines or appendages. Re-inversion. Prognosis is good if correct management done.

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**CONCLUSION:** Inversion of uterus can be prevented by active management of third stage of labour. Pulling of cord simultaneously with fundal pressure should be avoided. Even after correction infection, sloughing of uterus and chronic inversion with ill health may occur. Woman who has uterine inversion is at risk of recurrence in subsequent pregnancy.

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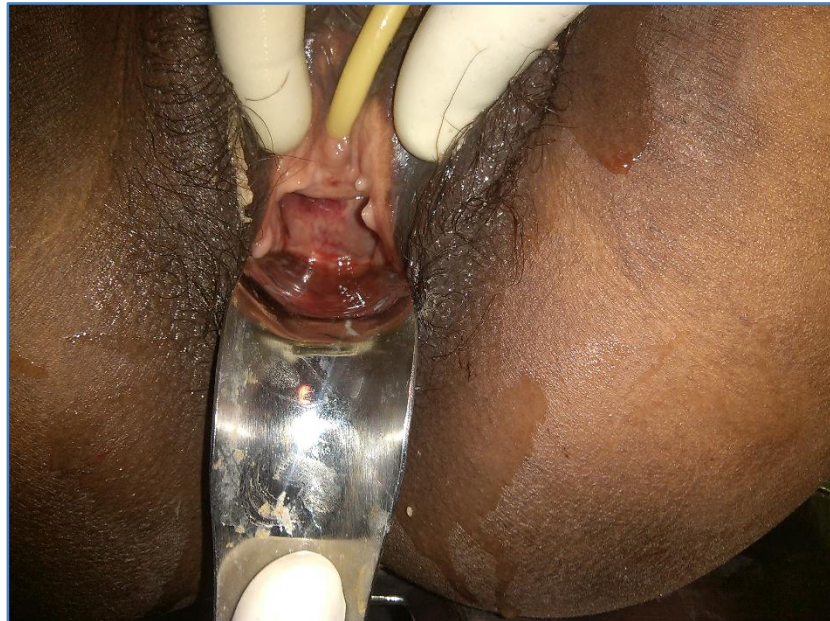


Fig. 1

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### **FINANCIAL OR OTHER**

**COMPETING INTERESTS:** None

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Date of Submission: 16/03/2015.  
Date of Peer Review: 17/03/2015.  
Date of Acceptance: 13/04/2015.  
Date of Publishing: 16/04/2015.