# CHRONIC PUERPERAL UTERINE INVERSION : A CASE REPORT

Shahanaj Sharmin[1] Didarul Alam[2] Moquaddes Akter Begum[3] Mohiuddin Ahmed[4]

**Summary**

***Inversion of utirus in a life threatening condition with a mortality rate of about 15%- We report an uncommon case of chronic puerperal uterine inversion. Our case is a 35-years old patient, para three full term normal vaginal deliveries reported to the gynecological outpatient department of Bangabandhu Memorial Hospital, University of Science & Technology Chittagong (USTC) Chittagong with a history of irregular per vaginal bleeding, sensation of something coming down per vagina, offensive vaginal discharge and anemia since her last delivery twelve years ago. A thorough clinical examination and radiological investigation including ultrasonography revealed chronic complete(stage II) puerperal Uterine inversion. The patient was treated with laparotomy followed by Haultain procedure subsequently hysterectomy done. We present one such case due to the rarity of this condition and the diagnostic dilemma it presents in the non puerperal stage.***

**Key words**

Chronic uterine inversion; haultains method; hysterectomy.

**Introduction**

Uterine inversion is a condition in which the uterus turns inside out with prolapse of the fundus through the cervix. It is rare complication of mismanaged labour [1]. Inversion of the uterus is an unusual entity and may be classified as puerperal/Obstetric and non puerperal/Gynecologic inversion [2,3]. Inversion varies in degree from a mere dimpling of the fundus to involvement of the whole uterus and cervix. It is seen in acute and chronic forms. Chronic inversion may follow an incomplete obstetric inversion unnoticed or left uncared [1]. It is reported as 1 per 2000-23000 deliveries [3].

1. Assistant Professor of Gynae & Obstetrics
Bangabandhu Memorial Hospital
University of Science & Technology Chittagong (USTC) Chittagong
2. Associate Professor of Paediatrics
Bangabandhu Memorial Hospital
University of Science & Technology Chittagong (USTC) Chittagong
3. Professor of Gynae & Obstetrics
Bangabandhu Memorial Hospital
University of Science & Technology Chittagong (USTC) Chittagong
4. Associate Professor of Paediatrics
Enam Medical College, Saver, Dhaka

**Correspondence :** Dr Shahanaj Sharmin

This wide range reflects different recording methods and patient populations. Bleeding and pain which may be severe enough to lead to shock when acute, are invariable with this chronic clinical condition. Inversion are usually described as acute (<30 days of delivery) or chronic (>30 days of delivery [3]. The following classification of uterine inversion has been described [4]

**Stage 1:** Inversion of the uterus is intrauterine or incomplete. The fundus remains within the uterine cavity.

**Stage 2:** Complete inversion of the uterine fundus through the fibromuscular cervix.

**Stage 3:** Total inversion, whereby the fundus protrudes through the vulva.

**Stage 4:** The vagina is also involved wih complete inversion through the vulva along with an inverted uterus.

The inverted uterus forms an inverted pyriform swelling, which occupies the upper part of the vagina. It is fleshy, dark red in colour, and usually bleeds readily on palpation. This mass may be confused with an exophytic tumour that has completely replaced the cervix. In complete and total inversion, it is impossible to find the cervical os [4].

The rarest among the rare entity is a nonpuerperal uterine inversion. Non-puerperal uterine inversion is often chronic, although DAS reported 8.6% of the inversion as sudden [5].

The management of the uterine inversion is variable. In acute cases manual repositioning should be attempted immediately to reverse the inversion. The tocolytic agent such as magnesium sulphate and terbutaline or halogenated anesthetic agent may be administered to relax the uterus to aid in reversal [6]. It can recur in subsequent preqnancy.

In cases where time has been elapsed between delivery and presentation, the inversion ring may have become too tight to allow manual repositioning of the fundus. In this most resistant and chronic inversions, surgical correction is required [7,8]. We present one such case due to rarity of this condition and the diagnostic dilemma.

**Case report**

A 35 years old lady, para:3 reported to the Gynecological outpatient department of Bangabandhu Memorial Hospital, USTC, Chittagong on 18th july 2012. She was complaining of irregular per vaginal bleeding, foul smelling vaginal discharge, back pain and sensation of pelvic pressure

for 12 years since last confinement. Other associated symptoms were malaise and headache. She had no past history of any chronic or significant medical illness. She had a full term delivery at home by dhai and the delivered a male alive baby with average weight and good Apgar score followed by retained placenta removed manually and managed conservatively by a local practitioner.

Her complaints date back to her last delivery after which she had progressive increased bleeding during menstruation.On examination she was a thinly built and averagely nourished lady, severe anaemia, tachycardia with a pulse rate 104/min, blood pressure at 100/60mm Hg. Systemic examination was within normal limits. Speculum and bimanual pelvic examination revealed a grossly congested,firm 5-6cm mass fleshy surface in vagina. The cervix could be neither seen nor palpated. The uterine fundus was not felt abdominally. Fundal depression could be felt on per rectal examination. The differential diagnosis of this case is sloughing myomatous polyp. Laboratory investigations revealed a Hb level 5 gm/dl, other haemetological and biochemical parameters were within normal limits except urinary pus cells 32-34/HPF. Ultrasonography of the pelvis revealed retroverted slightly bulky uterus with enlarged cervix. In view of her profund anaemia she was transfused four units of packed red blood cells which raised her post transfusion Hb to 10 gm%.

At laparotomy, complete uterine inversion was found with pulling of the round ligaments. The uterus was pulled up with a volsellum and posterior longitudinal hysterotomy incision in the lower uterine segment including the constriction ring was performed to facilitate the uterine replacement (Haultain procedure). The inverted fundus was pulled up from above, aided by a finger passed through the vagina. Rectification followed by hysterectomy done due to multiparity with noncompliant patient. A course of 3$^{rd}$ generation cephalosporin was given to prevent infection. Her postoperative period was uneventful and patient was discharged on the 7$^{th}$ day.

**Discussion**

Acute uterine inversion is a life threatening Obstetrical emergency which may follow a mismanaged third stage of labour. It can cause severe haemorrhage and shock, which may lead to death if not recognized and treated promptly [4].

In uterine inversion, the uterus actually turns inside out. It has been associated with multiparity, placenta accreta, short umbilical cord, precipitate labour and excessive cord traction in the third stage of labour and fundal pressure [8]. Initial treatment of uterine inversion is immediate manual replacement of the uterus(Johnson maneuver) along with resuscitative measures.

Acute incomplete uterine inversion may be difficult to recognize and may then progress to a chronic condition [9]. The final diagnosis in our case was chronic, puerperal inversion of the uterus through the fibromuscular cervix(stage2). This is rare and diagnosis is often difficult. In our case, the chronic condition could be the result of mismanagement or undiagnosed of the acute condition. She presented with irregular p/v bleeding with foul smelling p/v discharge since her last confinement which resulted in anaemia. Other associated symptoms were malaise, headache, back pain and sensation of pelvic pressure. Our patient required blood transfusion for correction of anaemia resulted from persistent vaginal bleeding of long duration. On laparotomy, haultain procedure for the replacement of the inverted uterus followed by hysterectomy . Chronic uterine inversion usually results in formation of dense constriction ring and progressive oedema, the uterus cannot be reverted by vaginal manipulation. In acute cases, the initial attempt should be made immediately for reposition of the fundus by vaginal manipulation(Johnson procedure); the operators fist is placed on the uterine fundus and gradually pushed into the pelvis through the dilated cervix. In chronic cases laparotomy is imperative. The fundus is simultaneously pushed upward from below and is pulled from above(Huntington procedure). If the constriction ring still prohibits reposition as in our case, it is carefully incised from the posterior end to expose the fundus(Haultain procedure). Chronic puerperal uterine inversion may be discovered weeks or months after delivery. But in our patient who presented 12 years after delivery with severe anaemia and foul smelling vaginal discharge. Due to extreme neglicence and very poor socioeconomic condition of patient, she presented with severe anaemia andUTI also. For this reason after correction of anaemia and treatment of UTI her hysterectomy was done.

**Conclusion**

As uterine inversion is a rare event, it makes sense and seems to be necessary that new data are presented and discussed in the literature from time to time, especially regarding the cases of chronic inversions. Presence of a mass in the vagina or protruding from it should raise suspicion of this serious event. Afterall safe motherhood initiative prevents chronic puerperal inversion.

**Disclosure**

All the authors declare no competing interest.

**References**

**1.** Brig S Rudra, Maj N Naredi, Col BS Duggal, Lt Col A Seth. Chronic Uterine Inversion: A rare complication of mismanaged labour. MJAFI 2010; 66: 91-92.

**2.** E Gomathy, Yamini Agarwal, P.N. sreeramulu, S.r Sheela. Non puerperal uterine inversion with an ovarian tumour-a rare case. Int J Pharm Biomed 2011; 2(2) 74-75.

**3.** Pop CS, O·Grady JP, Hoffman D,et al. Uterine inversion. WWW.emedicine.com. 2003;5(7).

**4.** Ashraf T. Non puerperal uterine inversion: A case report. Archieves of Iranian Medicine 2005;8(1):63-66.

**5.** Das,P. J Obstet Gynaecol Br Emp 1940; 47:527-548.

**6.** Hosteller DR, Bosworth MF. Uterine inversion: A life threatening Obstetric emergency. The journal of the American Board of Family Practice 2000; 13(2): 120-123.

**7.** Parkshit TD, Mayadeo M, Nandanwar YS. Pregnancy outcome after operative correction of puerperal operative uterine inversion. Archieves of Gynaecology and Obstetrics 2004;269(3):214-216.

**8.** Hicks JC. Nitroglycerine spray in treatment of uterine inversion. J Am. Board Fam Practice 2000; 13:374-375.

**9.** Adelfuye PO. Chronic uterine inversion presenting as menorrhagia: A case report. Nigerian Medical Practition 2004;46(3):56-58