

A Case Report on Near Miss Case of Acute Uterine Inversion after Delivery

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Abstract- Uterine inversion is a rare obstetric emergency that can lead to neurogenic shock or even maternal death. There are many management strategies, but they are poorly dispersed in the medical literature. In our case a third gravida patient was admitted in emergency with history of delivery of living baby at home and presenting to our emergency room at B.S.M.C.H, Gynae Department with a mass protruding through the vagina .She was in gasping condition, her B.P was not recordable, pulse was 130/min, with severe degree of pallor and postpartum haemorrhage. She was promptly resuscitated with plasma volume expanders and life saving drugs with continuous CPR. Intubation done at emergency room by anaesthetist. Another resuscitative measures like uterotonics ,blood, antibiotics given. Manual reposition of uterus done under anaesthesia and she was shifted to CCU immediately. As patient couldn't be moved to operation theatre so uterine packing with sterile roller gauze with betadine done. She recovered gradually. Two days later extubation done and she was put on moist oxygen but she developed sepsis. But with broad spectrum antibiotics and strict monitoring she recovered. Two weeks later she was discharged in a healthy and stable condition.

Uterine inversion is a rare and emergency condition ,therefore a strong clinical suspicion and prompt intervention is necessary.

Keywords- Uterine inversion, Gasping, Neurogenic shock, Blood transfusion

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I. Introduction

Uterine inversion is a rare obstetric emergency. The incidence varies considerably and can range from 1 case in 2000 to 1 case in every 50,000 births¹. This postpartum complication has an academic importance due to its rarity and severity. When not immediately identified, the massive and often underestimated blood loss can lead to hypovolemic shock and maternal death that can reach 15% in some series².

The best management options for this condition are not fully known, given the worldwide scarce experience of each obstetrical team managing this type of situation. There are several therapeutic strategies described in the literature, including drugs, manual maneuver and surgical interventions.

The aim of this article is to describe a case of complete acute uterine inversion after a normal delivery, and provide a literature review of uterine inversion, its definition, etiology, predictive and risk factors, diagnosis and treatment.

II. Case Presentation

In our case a third gravida patient was admitted in emergency with history of delivery of living baby at home and presenting at B.S.M.C.H, Gynae Department with a mass protruding through the vagina .She was in gasping condition, her B.P was not recordable, pulse was 130/min, with severe degree of pallor and postpartum haemorrhage. She was promptly resuscitated with plasma volume expanders and life saving drugs like adrenaline, hydrocortisone, deriphylline .Continuous CPR was given . Intubation done at emergency room by anaesthetist. Another resuscitative measures like uterotonics , blood, antibiotics given. Manual reposition of uterus done under anaesthesia and she was shifted to CCU immediately. As patient couldn't be moved to operation theatre so uterine packing with sterile roller gauze with betadine done. She recovered gradually .After 48 hours extubation done and vaginal pack also removed ,but patient developed sepsis as her counts were very high and temperature was also raised. Immediately antipyretics and broad spectrum antibiotics given. With strict monitoring of vitals and resuscitative measures she recovered gradually. She was shifted to HDU from CCU in stable condition .Two weeks later she was discharged in stable and healthy condition.

PHOTOGRAPHS OF THE PATIENT SUPPORTING THE CASE

Fig 1-Photo in Emergency



Fig 2- Photo of the patient in CCU after reposition



III. Discussion

DEFINITION

Uterine inversion is defined as the passage of the uterine fundus through the endometrial cavity and cervix, turning the uterus inside out. This, although rare, can occur in two distinct clinical situations: in the postpartum period and spontaneously. Non-puerperal uterine inversion accounts for 5% of all uterine inversions and is generally associated with exteriorization of uterine cavity tumors^{3,4}.

Uterine inversion can be classified in four degrees, depending on the localization of the uterine fundus. In the 1st degree, the fundus is inside the cavity. If it reaches but does not exceed the cervical external os, it is a 2nd degree inversion. A 3rd degree inversion occurs when the fundus extends out of the external os. When it is beyond the vaginal introitus, it is called complete inversion⁵ or 4th degree uterine inversion⁶.

The term full uterine inversion is used to report situations of vaginal and uterine inversion caused by mass effect in the context of a pelvic tumor; it is also important to describe when the inversion occurs in relation to delivery. Thus it is classified as acute uterine inversion if it takes place before the contraction of the cervical ring, subacute if this occurs after contraction of the cervical ring, or chronic if it occurs after the first 4 weeks after birth⁷.

ETIOLOGY

Although generally associated with excessive cord traction in the third stage of labor, the causes of uterine inversion remain unexplained. In fact, there are several cases in which no tension was carried out on the cord. Risk factors associated with this situation are tension on the umbilical cord, fetal macrosomia, excessive fundal pressure, placenta accreta, short umbilical cord, ligaments laxity, and congenital abnormalities of the uterus^{2,8}.

Diagnosis

The diagnosis of uterine inversion is clinical. The observation of the uterine fundus beyond the vaginal introitus in the complete form or the palpation of the fundus through the external os in the 3rd degree uterine inversion is

the most common sign. Nevertheless, the diagnosis is often suspected in the presence of massive blood loss after childbirth or in the absence of uterine fundus during abdominal palpation. Hypotension and tachycardia may supervene and evolve into hypovolemic shock. When a physical examination is inconclusive and the patient is hemodynamically stable, the diagnosis can also be confirmed by ultrasound, which detects a vaginal mass with specific characteristics (the echogenicity of the endometrium shows the shape of C letter and the echogenicity of the uterus the shape of H letter⁹).

TREATMENT

The initial approach is to try to reverse immediately the uterus with manual pressure on the fundus through the vagina. This maneuver, called Johnson maneuver, should be carried out as soon as possible to minimize the blood loss and to improve the chances to resolve, since the longer the time between the inversion and the beginning of the maneuver, the lower is the success rate. This is explained by the involution of the cervix which induces a rigid ring that makes the restoration of the normal position of the uterus difficult. It is also essential to establish other therapeutic actions including suspension of oxytocic infusion and administration of drugs with utero-relaxant effect. Magnesium sulfate and salbutamol are the most commonly prescribed drugs due to their availability and frequent administration. Some authors have reported good results with nitroglycerin for relaxation of the cervical ring¹⁰.

. When the initial approach fails, it is essential to have an operating room, an obstetrical team and an anaesthetist available for a surgical intervention. There are two main surgical techniques described: Huntington and Haultain technique. Another surgical technique by vaginal route was described by Spinelli.

After reversal of the clinical condition, it is essential to administrate uterotonic agents (oxytocin or misoprostol) to prevent recurrence. Some authors support the use of large spectrum antibiotics to prevent endometritis or sepsis¹¹.

IV. Conclusion

Uterine inversion is an obstetric complication that, due to its gravity, requires a rapid diagnosis and immediate clinical action. Its low incidence leads to scarce experience in solving this kind of situation. Regardless of the treatment, vaginal or surgical approach, the best prognosis occurs in situations when the diagnosis and maneuver for uterine reversal are made early. The authors concluded that there are no predictive factors known for uterine inversion because of its rarity, only risk factors. Therefore, it is essential to keep in mind this diagnosis in all cases of postpartum hemorrhage, and be updated about the medical therapy and surgical techniques required to solve this type of complication.

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