

## Clinical Case Uterine Inversion: About a Case

(Uterine inversion: about a case)

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### Abstract

*A uterine inversion is a rare complication of potentially severe childbirth, in which the uterine body turns into a glove finger and protrudes into the vagina or out of the vulva. This pathology usually manifests itself immediately after childbirth, with significant pain in a hemorrhagic shock picture. The diagnosis is essentially clinical and requires to be immediate in order to allow a rapid re-reversal before the formation of a striction ring. Mortality is now low if diagnosis and management are early. Uterine inversion also does not appear to burden the obstetric prognosis. Among the factors favouring it is primarily uterine hypotonia associated with a fundic insertion of the placenta, which causes depression of the uterine bottom in case of untimely maneuvers (traction on the cord, uterine expression). Re-reversal should be rapid, conducted in conjunction with resuscitation (shock treatment) measures. It uses several manual methods of turning the uterus over after possible use of muscle relaxants (nitrous derivatives, betamimetics, general anesthesia). Failure leads to surgical treatment by high or low path. We report the case of a total uterine reversal that occurred after delivery, during a vaginal delivery.*

**Keywords:** Uterine reversal, conservative treatment, prognosis.

### Introduction

Acute postpartum uterine inversion is penetration into the uterine cavity at the bottom of the uterus that turns "in a finger-of-glove." Its frequency reported in the literature varies from 1/2000 to 1/20,000 deliveries. It is a diagnostic and therapeutic emergency, where multidisciplinary alliance is paramount. The choice among therapeutic attitudes should be adapted on a case-by-case basis: type of analgesia, cervical ring, hemorrhagic syndrome, failure of techniques. In the face of any postpartum hemorrhage, this pathology should be sought at perineal inspection and examination of the genital tract with vaginal valves [1]. Diagnosis is easy, but the real pitfall lies in its lack of knowledge resulting in a diagnostic delay that can put the maternal life-threatening prognosis at risk.

### Patient and observation

Mrs. S.M., 22-year-old primigeste, with no pathological history, well-followed pregnancy, admitted at H6 from the postpartum of a vaginal delivery after prolonged labour for management of a hemorrhage of deliverance. The admission examination found a patient who was

hemodynamically unstable with a type II uterine inversion on gynecological examination. The bleeding was subnormal. The obstetrician and anaesthetist were at the scene. An attempt to manually reduce pat taxic was carried out without result. After conditioning proceeded, by high means, to a disintegration of the uterine globe after median hysterostia.

### Discussion

Obstetrical uterine inversion is a rare accident today due to precautions taken during placental extraction. Treatment requires multidisciplinary collaboration between the obstetrician-gynecologist, midwife, anaesthetist and paramedic team; it is based on three main points: correction of the shock state, intra-abdominal replacement of the uterus and correction of uterine hypotonia [2]. The literature suggests a primary reduction in taxi inversion. If this technique fails, other methods are described; they may be non-surgical such as Johnson, O'Sullivan, obstetric or conservative surgical suction cup methods such as Spinelli, Huntington, Haultain, or non-conservative surgery [3]: hysterectomy. In our case, oxytocins were enough to combat uterine atony. In the literature, uterine atony can be

managed by uterine massage, oxytocin, Nalador in case of ineffective oxytocin, and as a last resort by uterine padded (by Hayman and Matsubara-Yano techniques). Recently [4], the "Bakri" balloon (vaginally inserted intrauterine balloon filled with 600mL of physiological serum) was described as

a tool to prevent uterine re-inversion within two hours of initial reintegration [5]. It would provide less complications (infection and uterine necrosis) than uterine padded sutures.



**Figure 1:** Uterine Inversion

The diagnosis of acute uterine inversion is primarily a clinical diagnosis, made during delivery or soon after, before a rarely absent call symptomatology [6]. Bleeding, shock, pain, reappearance of an urge to push are the signs of call. A rapid diagnosis is crucial because a uterine reversal involves the vital prognosis. Rapid treatment, as soon as the diagnosis is made, is fundamental to not making the patient's life-threatening prognosis [7]. Given the possibility of iatrogenic risk factors, it is essential never to perform certain manoeuvres aimed at hastening delivery on a hypotonic uterus [8]. Medical resuscitation and manual reduction attempts (O taxis) must be carried out immediately and simultaneously. Manual reduction of inversion should be attempted as quickly as possible before the formation of the cervical ring, which usually forms within 30 minutes of inversion [9]. The manoeuvre is facilitated by obtaining a good uterine release obtained by general anesthesia or by the use of muscle relaxant drugs such as bemimetics, nitrous derivatives or magnesia sulphate. The criteria necessary for the formation of uterine inversion, accepted by all authors, are uterine hypotonia and sufficient cervical dilation. For some authors, 50-60% of uterine inversions have as etiology extrinsic factors such as stopping oxytocins after prolonged labour, pulling on the cord or abdominal expression (Crédé's maneuver). Intrinsic factors are described as placental location (fundic or accreta), primiparity, the presence of a short cord, long or very fast work promoting hypotonia. However, Watson's study does not find a significant difference in parity, length of work, instrumental extraction, presentation, use of oxytocins during labour, time to deliver, manoeuvres to activate delivery (traction on the cord or crédé maneuver) and children's weight. In our clinical case, it was a primigest patient, having had prolonged labour and presenting a normally inserted fundic placenta, the extrinsic risk factor is traction on the cord. The mortality rate depends on the time it takes to take care of the patient. It ranges from 80% without treatment to an average of 15% for treated inversions. Hemorrhage is by far the most common sign, it is found in 94% of cases in the Watson series. Shock is also

a frequent, almost constant sign from the second stage for Thoulon, it represents about 40% of cases, all stages combined [10]. This shock, not proportional to the intensity of the hemorrhage, which it may precede, is explained on the one hand by hypovolemia, but also by hypovolemia, but also by and above all, by stretching the nerve nets contained in the distended uterine ligaments. Pain, a more common sign from the second stage, can be brutal and violent hypogastric seat. The reappearance of the urge to push is a rare sign but of great semiological value because it appears after deliverance. Regarding our case the patient was anaesthetized, the diagnosis was easy and rapid, we witnessed a hemorrhage of delivery associated simultaneously with a state of shock corrected by medical resuscitation (filling, transfusion), uterotonics and uterine massage. In our case, it was a reversal that occurred during a vaginal delivery, thus easy and rapid diagnosis, which is different from the cases described in the literature, which occurred after vaginal delivery. Manual or taxi reduction simply consists of disintegrating the uterus by gradually pushing it back. It can be central with first disinvagination of the uterine bottom if the cervical ring is well dilated. It will be peripheral if the cervical ring is narrower. It is essential to hold the hand in the uterus for a few minutes for optimal efficiency. Johnson's method of stuffing the uterine bottom with full hand and reassembling it in the abdominal cavity to the level of the umbilical uses passive traction of the distended ligaments to disintegrate the uterus. This position is maintained for 3 to 5 minutes to be effective. This method, widely used in the United States, has no described failures. O 'Sullivan's hydraulic method of filling the vagina with two litres of hot salted serum at 50oC for 5 minutes allows the uterus to be reversed. It can be proposed if manual reduction fails. All these reduction methods are carried out with the placenta in place unless it generates a gene at the repositioning of the uterus. After manual reduction, an endouterine revision is performed and oxytocins are used to prevent immediate recurrence. In case of failure of manual reduction or recurrence despite well-conducted treatment, a surgical method is performed.

The most commonly used intervention is the one described by Huntington. This technique involves pulling with pliers placed one after the other on the uterine bottom as the uterus is disintegrated. When the procedure is not feasible (tight ring), a posterior median hysterotomy is performed (Haultain intervention). On a low-level route, the most common procedure is the one described by Spinelli. It consists of an anterior median colpo-hysterotomy after vesico-uterine detachment. The choice of surgical treatment by laparotomy or vaginal is essentially based on the experience of the operator without it being possible to say that one route is more advantageous than the other. Exceptional indication, hysterectomy was performed for a gangrenous uterus on a chronic reversal. The cure is without sequelae, but the risk of recurrence within hours and days of reversal can be as high as 42% when a manual reduction alone has been achieved. The risk of recurrence during a subsequent delivery does not appear to be increased, but the pregnant uterus should be considered scary in the event of a previous surgical reduction.

### Conclusion

Uterine inversion is a diagnostic and therapeutic emergency, where multidisciplinary alliance is paramount. The choice among therapeutic attitudes should be adapted on a case-by-case basis: type of analgesia, cervical ring, hemorrhagic syndrome, failure of techniques. In the face of any postpartum hemorrhage, this pathology should be sought at perineal inspection and examination of the genital tract with vaginal valves. Diagnosis is easy, but the real pitfall lies in its lack of knowledge resulting in a diagnostic delay that can put the maternal life-threatening prognosis at risk.

**"Conflict of interest: none"**

### References

1. Lisik F, Plonka S, Fize C, Calle M, Pennehouat G. Une urgence obstétricale rarissime: inversion utérine puerpérale aigue. *J gynécol Obstet Biol Reprod*. 2004;33(9):546-50.
2. Jerbi M, Iraqui Y, Jacob D, Truc JB. Inversion utérine puerpérale aigue: à propos de deux cas. *Gynecologie Obstétrique Fertilité*. 2004;32(3):224-47.
3. Dessaint A, Creux H, Dally Inversion utérine puerpérale aiguë: à propos d'un cas. *Journal de Gynécologie Obstétrique et Biologie de la Reproduction*. 2014; 12(7):43.
4. Philippe HJ, Goffinet F, Jacquemart F, Morel B, Grall JY, Lewin D. Les traitements des inversions utérines obstétricales à propos de trois observations. *J Gynecol Obstet Biol Reprod*. 1991;20(9):843.
5. Thoulon JM, Héritier Ph, Muguet D, Spiers C, Lebrat J, Dumont M. L'inversion utérine. *Rev Fr Gynecol Obstet*. 1980;75(6):321-6.
6. Miras T, Collet F, Seffert P. Inversion puerpérale aiguë: à propos de deux cas. *J Gynecol Obstet Biol Reprod*. 2002;31(3):668-671.
7. Dwivedi S, Gupta N, Mishra A, Pande S, Lal P. Uterine inversion: a shocking aftermath of mismanaged third stage of labour. *Int J Reprod Contracept Obstet Gynecol* 2013; 2(5): 292-295.
8. Dessaint A, Creux H, Dally Inversion utérine puerpérale aiguë: à propos d'un cas. *Journal de Gynécologie Obstétrique et Biologie de la Reproduction*. 2014; 43(7) :256-259.
9. Beringer RM. Puerperal uterine inversion and shock. *Br J Anaesth* 2004; 92(8): 439-441.
10. Achanna S, Mohamed Z, Krishnan M. Puerperal uterine inversion: a report of four cases. *J Obstet Gynaecol Res*. 2006;32(3):341-345.