International Journal of Reproduction, Contraception, Obstetrics and Gynecology
Mbodji A et al. Int J Reprod Contracept Obstet Gynecol. 2022 May;11(5):1578-1580
www.ijrcog.org
pISSN 2320-1770 | eISSN 2320-1789

DOI: https://dx.doi.org/10.18203/2320-1770.ijrcog20221298

Case Report

Puerperal uterine inversion: a new case report

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Received: 08 February 2022
Accepted: 01 April 2022

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ABSTRACT

Puerperal uterine inversion is a rare and severe affection which the uterine fundus collapses into the endometrial cavity. The diagnosis is essentially made on clinical examination, which also allows to determinate the gravity. The management must be done early, which can be surgical or non-surgical. Through a case study we will review the literature.

Keywords: Uterine inversion, Puerperal, Reduction

INTRODUCTION

Uterine inversion is an pathology in which the uterine fundus collapses into the endometrial cavity. This is a rare complication that most often occurs in the postpartum period but in very rare cases can occur outside of pregnancy.[1-3] Incidence is variable with rates ranging from approximately 1 in 2500 to 1 in 50000 normal deliveries.[2-5] It is a serious condition that is included in the etiological group of postpartum haemorrhage.

The diagnosis is easily made on clinical examination. It includes 4 degrees of severity varying from simple depression of the uterine fundus to total exteriorisation.

The fundus may be present in the uterine cavity (incomplete), through the cervical or even throught the vaginal introitus.[3]

It is an emergency which must be diagnosed and treated quickly to avoid massive bleeding. Several treatment alternatives have been described in the literature ranging from manual reintegration to surgery.[3,6,7]

We reported a case of puerperal uterine inversion in a multiparous woman in a postpartum haemorrhage situation.

CASE REPORT

This was a 33-year-old patient multiparous admitted to our center at H30 post-partum for management of uterine inversion. She had given birth by vaginal delivery, with a normal weight child. In her history, there were no reports of delivery of large children or genital prolapse. The examination on admission showed signs of haemorrhagic shock with mucocutaneous pallor, a soft abdomen with no perception of the uterine globe.

At the vulva we noted a flow of blood and the perception of a bloody mass. An under-valve examination allowed better objectification of this mass occupying the whole vagina in favour of a uterine inversion. The vaginal touch

revealed a soft mass in favour of a type 3 uterine inversion (Figure 1).

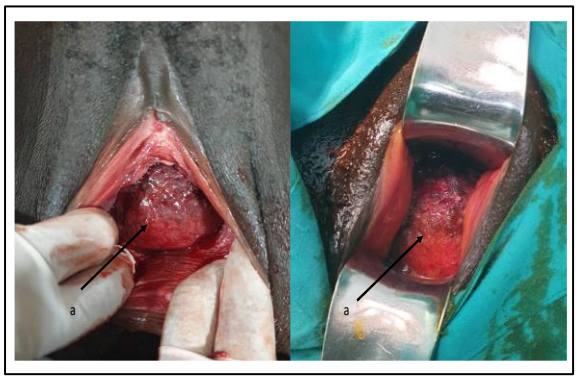

Figure 1: Presentation of the 3rd prolapsed uterus in the vagina.

Biological tests showed microcytic hypochromic anaemia with a haemoglobin level of 5.7 g/dl. The patient was managed in the operating unit under general anaesthesia. First, we performed a bladder emptying and then a simple taxi allowed to reintegrate the uterus. Secondly, a treatment based on uterotonics was introduced, which enabled good uterine retraction to be obtained with the perception of a good safety globe on abdominal palpation. The postoperative period was simple without recurrence.

DISCUSSION

Puerperal uterine inversion is a rare condition that has been described for a long time and belongs to the etiological group of postpartum haemorrhages.[3,4,8] Incidence is variable with rates ranging from approximately 1 in 2500 to 1 in 50000 normal deliveries.[2-5] Non-puerperal uterine inversion is extremely rare, being the most common cause for submucous myoma, malignant uterine tumors or idiopathic causes[9,10]

The diagnosis is essentially clinical when a vulvovaginal mass with the characteristics of a uterus appears in the immediate postpartum period. It is usually accompanied by postpartum haemorrhage, state of shock, pelvic pain. All these symptoms were found in our patient. Uterine inversions are classified by the extent of inversion and time of occurrence.[11]

For the extent of inversion: 1st degree (incomplete): The fundus is within the endometrial cavity, 2nd degree (complete): The fundus protrudes through the cervical, 3rd degree (prolapsed) – The fundus protrudes to or beyond the introitus, 4th degree (total) – Both the uterus and vagina are inverted.

In practice it is simply referred to as complete or incomplete depending on whether the fundus has passed through the cervix. For our patient, it was a 3rd degree puerperal uterine inversion.

For the time of occurrence: acute: within 24 hours of delivery, subacute: more than 24 hours but less than four weeks postpartum, chronic: ≥1 month postpartum.

The most common risk factors found were a uterine atony, macrosomia, previous uterine inversion, Ehlers Danlos syndrome and other connective tissue disorders, retained placenta, and placenta accreta. The cause can also be iatrogenic with excessive traction on the cord, especially if the uterus is atonic and fundal pressure when the uterus is relaxed.[11]

For our patient no etiology had been found except the fact it was a multiparous. But as the patient had not given birth in our hospital, we could not eliminate an iatrogenic cause.

Diagnosis and management must be done early to avoid complications related to the associated haemorrhage, but also to facilitate uterine reintegration. Management of uterine inversion should be step wise, comprising of non-surgical and surgical approaches. Surgical procedures are indicated when manual reduction fails. The first step is to immediately attempt to manually replace the inverted uterus to its normal position. This is best accomplished by placing a hand inside the vagina and pushing the fundus along the long axis of the vagina toward the umbilicus (Johnson's Maneuvers).[3,11] In case of failure, the management should be surgical with two procedures described in the literature. The Huntington's procedure which consists of performing traction with clamps placed one after the other on the uterine fundus as the uterus is uninvaginated. When the procedure is not feasible (tight ring), a posterior median hysterotomy is performed it is the Haultain procedure.[6,7] Other techniques have been described, such as the O'Sullivan technique, which consists of a hydrostatic reintegration or a vaginal cure.[12] Hysterectomy is preferred in cases of a gangrenous uterus or uncontrolled hemorrhage.[7]

In our case, the Jonhson's maneuvers was sufficient to reintegrate the uterus. There was no recurrence.

In view of our case and the few cases reported in the literature, it seems important to know how to recognise and manage these rare pathologies. Recognition of such obstetrical emergencies and application of such maneuvers require expertise and skill attainable only through formal training with the help of simulation techniques.

CONCLUSION

Uterine inversion is a rare condition that most often occurs in the postpartum period. The diagnosis and the management must be made early to avoid complications related to the often-associated bleeding and to facilitate treatment.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: Not required

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Cite this article as: Mbodji A, Wade M, Gueye M, Ndiaye MD, Sene M, Sylla MN, et al. Puerperal uterine inversion: a new case report. Int J Reprod Contracept Obstet Gynecol 2022;11:1578-80.