Journal of Gynecology and Obstetrics
2023; 11(5): 130-132
http://www.sciencepublishinggroup.com/j/jgo
doi: 10.11648/j.jgo.20231105.15
ISSN: 2376-7812 (Print); ISSN: 2376-7820 (Online)

Case Report

Chronic Non-Puerperal Uterine Inversion About a Case

Diakite Sandaly[1], Conte Ibrahima[2], Camara Fode Lansana[3], Camara Soriba Naby[4], Soumaoro Labile Togba[1], Diakite Saikou Yaya[3], Camara Ibrahima Sokhona[1], Toure Aboubacar[1]

[1]Department of General Surgery, Ignace DEEN National Hospital, Gamal Abdel Nasser University of Conakry, Conakry, Guinea

[2]Department of Gynecology and obstetrics, Ignace Denn National Hospital, Gamal Abdel Nasser of Conakry, Conakry, Guinea

[3]Department of Visceral Surgery, Donka National Hospital, Gamal Abdel Nasser University of Conakry, Conakry, Guinea

[4]Department of Visceral Surgery, Friendship Hospital Sino Guinean of Kipe, Gamal Abdel Nasser University of Conakry, Conakry, Guinea

Email address:

sandiak2003@gmail.com (Diakite Sandaly)

To cite this article:

Diakite Sandaly, Conte Ibrahima, Camara Fode Lansana, Camara Soriba Naby, Soumaoro Labile Togba, Diakite Saikou Yaya, Camara Ibrahima Sokhona, Toure Aboubacar. Chronic Non-Puerperal Uterine Inversion About a Case. *Journal of Gynecology and Obstetrics*. Vol. 11, No. 5, 2023, pp. 130-132. doi: 10.11648/j.jgo.20231105.15

Received: September 18, 2023; **Accepted**: October 14, 2023; **Published**: October 31, 2023

Abstract: Chronic non-puerperal uterine inversion is an extremely rare complication. Puerperal inversions are reported in 85% of uterine inversion cases. Puerperal uterine inversions are life-threatening due to the cataclysmic delivery hemorrhage they cause. Most reported cases of non-puerperal uterine inversion are due to benign tumors, including leiomyomas. Rarely, a malignant uterine tumor presents as a uterine inversion. Clinical diagnosis is often difficult due to the distorted anatomy. Four anatomical stages are classically described Radical treatment is preferred in the absence of a desire for pregnancy, and is virtually indispensable in the case of 3rd and 4th degree uterine inversion. We report the case of a 42-year-old patient who presented urgently with a stage 3 non-puerperal uterine inversions and cyanosis of the external mass. We indicated sub hysterectomy by vaginal approach. This technique was decided upon intraoperatively in view of the lesion assessment. The authors agree that due to the rarity of this pathology, most cases are operated on without any surgical experience. A rare complication that is difficult to diagnose, acute non puerperal uterine inversion is a medical-surgical emergency that must be considered when a mass is externalized through the vaginal vulva, although in our context, delivery through the uterine cervix is often the hypothesis evoked.

Keywords: Uterine Inversion, Non-Puerperal, Hysterectomy

1. Introduction

Uterine inversion is a rare medical emergency in which the body of the uterus turns over like a glove finger and protrudes into the vagina or out of the vulva. [1]. It is a rare pathology, more frequent in obstetrics than in gynecology [2]. Uterine inversion is a serious condition that can be life-threatening due to the hypovolaemic shock it causes [3]. Traction on the uterine suspensory ligaments causes bradycardia secondary to the parasympathetic response. This bradychardy leads to cardiovascular instability [3, 4].

Four anatomical stages are classically described [5].

Stage 1: the uterine fundus is capsule-depressed, without reaching the cervical os.

Stage 2: the uterus is retracted and passes through the cervical os.

Stage3: the uterine body is in the vagina and can exteriorize.

Stage4: total inversion, with the vaginal walls participating in the retraction.

Several approaches have been described in the literature: conservative treatment when reduction of uterine inversion is possible, mainly in cases of 1st or 2nd degree uterine inversion. Radical treatment is preferred in the absence of a desire for pregnancy, and is virtually indispensable in cases of 3rd and 4th degree uterine inversion [5, 6].

This unusual pathology may give rise to a diagnostic delay and pose a therapeutic problem.

In our practice, when faced with the externalization of a

mass through the vagina, with or without metrorrhagia, the main diagnosis evoked is a polyp accoocted through the cervix.

The aim of this study was to report a case of chronic 3rd degree non-puerperal uterine inversion.

2. Patient and Observation

Mrs K C, 42 years old, 7 vaginal deliveries with no incidents and no particular antecedents. She was referred to us from a primary care medical facility. She presented with digestive signs such as abdominal pain in the hypogastric region, nausea and vomiting and a mass externalized through the vagina without metrorrhagia.

4 months prior to these digestive signs, she had experienced vaginal discomfort with a sensation of an intravaginal ball, accompanied by dysuria, pollakiuria and micturitional burning without urinary incontinence. She had neglected these symptoms. These symptoms worsened in the two weeks prior to the externalization of a mass through the vagina.

Clinical examination revealed a vulvar hollowness, a gaping urinary meatus without urinary incontinence, and an externalized mass in the vulva (stage 3). This purplish mass, about 9cm long, was partly cyanotic.

See Figure 1.

Figure 1. *A mass externalized at the vulva.*

Abdominal ultrasound showed a pelvis devoid of uterus, with ovaries not visualized.

In view of the suspicion of stage 3 non puerperal uterine inversion and cyanosis of the external mass, we indicated vaginal hysterectomy.

Under general anaesthesia in the Trendelembourg position, we performed a subtotal hysterectomy, removing the body of the uterus and leaving the cervix in place. We found a submucosal myoma located at the uterine fundus with a cesile base.

See Figure 2.

Figue 2. *Pièce d'hystérectomie sub totale qui montre un myome sous muqueux situé au fond utérin avec une base cesile.*

The post-operative course was straightforward. The patient was discharged on D5. Anatomopathological examination confirmed uterine tissue with no sign of malignancy.

3. Discussion

Uterine inversion is very rarely reported in the literature. In the post-partum period, its frequency is estimated at 1/100,000 deliveries in France [7]. Outside the puerperal period, no epidemiological data are available. These are sporadic cases. Fifty-six cases were reported in the literature between 1976 and 2014 [7], the majority of which involved postmenopausal women or women over 45 years of age [3]. Four cases of uterine inversion on embryonal rhabdomyosarcoma in adolescents have been described [4, 9]. Two conditions are necessary for the formation of uterine inversion: uterine hypotonia and sufficient cervical dilatation. [6, 7].

Possible mechanisms for non-puerperal uterine inversion have been proposed [9].

Most people agree with the thinning and weakening of the uterine wall at the tumor site during tumor implantation and the simultaneous contractions of the uterine musculature expelling the tumor through the cervix into the vagina [10]..

The weight and size of the tumor, coughing and sneezing exert traction on the thinned uterine wall, aggravating the inversion [3].

Several factors are involved in the pathophysiology of non-puerperal uterine inversion in our patient: the presence of a myoma located on the uterine fundus and a probable cervical hollowness (7 vaginal deliveries in 13 years).

In our case, the cause was a submucosal myoma located at the uterine fundus with a cesile base.

In 70 to 85% of cases, authors report a submucosal myoma as the main cause [3]. Malignant tumor pathologies are cited in 15 to 30% of cases. Uterine sarcomas (leiomyosarcoma, embryonal rhabdomyosarcoma, endometrial stromal sarcoma)

are the most frequently reported [3].

Hysterectomy can be performed vaginally, exposing the surgeon to technical difficulties due to changes in the usual anatomical landmarks, particularly with regard to the urinary excretory tract (ureters and bladder).

We used this approach in our case, because of the cyanosis and the fact that it was stage 3. We performed a subtotal hysterectomy, leaving the cervix in place.

Treatment of non-puerperal uterine inversion depends on the preoperative diagnosis. Because of the possibility of a malignant tumor of the uterus, and the fact that the vast majority of patients are of childbearing age, hysterectomy is the treatment of almost all reported cases [12].

Huntington's surgery is the first choice before hysterectomy [11].

It involves grasping the round ligaments and the uterus under the inversion zone and slowly pulling upwards several times to invert the uterus.

The abdominal route is also used, especially when the uterus needs to be reconstituted in the pelvic cavity. In this case, the inversion must be reduced.

The choice of surgical treatment by laparotomy or vaginal approach depends essentially on the experience of the surgeon, without it being possible to state that one route is more advantageous than the other [13].

The laparoscopic-vaginal approach already described by Auber et al [9] could be a good alternative for confirming the diagnosis, assessing the degree of ischemia of the adnexa and vagina, and laparoscopically devascularizing the uterus by controlling the uterine pedicle from its origin.

In the literature, uterine artery embolization is indicated in acute puerperal inversions reducible to conservative treatment, and in chronic non-puerperal uterine inversions, generally of the 2nd and 3rd degree [9].

It should be mentioned that in patients who wish to become pregnant or who are nulliparous, the abdominal approach and preservation of the uterus should be chosen whenever possible; otherwise, vaginal myomectomy followed by routine vaginal hysterectomy should be recommended [14, 15].

4. Conclusion

Acute non-puerperal uterine inversion is an extremely rare complication whose etiological diagnosis is difficult to make preoperatively.

It is a medico-surgical emergency. Subtotal hysterectomy via a vaginal approach is a safe and reliable surgical technique.

Conflicts of Interest

The authors declare no conflict of interest.

References

[1] Beringer RM, Patteril M. Puerperal uterine inversion and shock. Br J Anaesth. 2004; 92 (3): 439-4. PubMed | Google Scholar.

[2] Dayan SS, Schwalbe SS. The use of small dose intravenous nitroglycerin in a case of uterine inversion. Anesth Analg 1996; 82: 1091-93.

[3] Lupovitch A, Edwin R, Ruey C. Non-puerperal uterine inversion in association with uterine sarcoma: case report in a 26-year-old and review of the literature. Gynecol Oncol. 2005; 97 (3): 938-41. PubMed |Google Scholar.

[4] Da Silva BB, Dos Santos AR, Bosco Parentes-Vieira J, Lopes-Costa PV, Pires CG. Embryonal rhabdomyosarcoma of the uterus associated with uterine inversion in an adolescent: a case report and published work review. J Obstet Gynecol Res. 2008; 34 (4 Pt 2): 735-8. PubMed | Google Scholar.

[5] Toulon JM, Héritier P H, Muguet D, Spiers C, Lebrat J, Dumont M. L'inversion utérine, Rev Fr Gynecol Obstet 1980: 321-6.

[6] Pelissier-Komorek A, Lucereau-Barbier M, Diab J, Gavillon N, Graesslin O. Acute non-puerperal uterine inversion the third degree. Gynécologie Obstétrique & Fertilité. 2013; 41 (2): 130-2. PubMed | Google Scholar.

[7] Ahmed Touimi Benjelloun1, &, Assia Makayssi1, Simohamed Ennachit1, Mohamed Elkarroumi1. Chronic non-puerperal uterine inversion: about a case Pan African Medical Journal. 2018; 31: 231. PubMed |Google Scholar doi: 10.11604/pamj.2018.31.231.16668.

[8] Goffinet F, Heitz D, Verspyck E, Philippe HJ. Inversion utérine puerpérale. Encycl Méd Chir Obstétrique. Elsevier, Paris 1999: 5107-A-10: 1-9.

[9] Gowri V. Uterine inversion and corpus malignancies: a historical review. Obstet Gynecol Surv 2000; 55 (11): 703e7.

[10] Yueh-Fong Tsai a, Tze-Ho Chen a, Kun-Tu Yeh b, Horng-Der Tsai a, Ming Chen.

[11] C= [10] Lascarides E, Cohen M. Surgical management of non-puerperal inversion of the uterus. Obstet Gynecol 1968; 32 (3): 376e81.

[12] D=6. 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: 843–9. [PubMed] [Google Schol].

[13] Auber M, Darwish B, Lefebure A, Ness J, Roman H. Management of nonpuerperal uterine inversion using a combined laparoscopic and vaginal approach. Am J Obstet Gynecol. 2011; 204 (6): e7. PubMed |Google Scholar.

[14] Hawnaur JM. IRM de l'inversion utérine non puerpérale due à un carcinome de l'endomètre. Moulure F, Clin Radiol. juin 2004; 59 (6): 534-537.

[15] Fofie CO, Baffoe P. GHANA Inversion utérine non puerpérale: un rapport de cas. Med J. 2010; 44 (2): 97-99.