



Acute Abdominal Pain During Labor: Should we Think about Uterine Torsion?

Ameni Bouattour*, Fatma Khanfir, Amina Mnejja, Emna Ben Aribia, Mohamed Derbel and Kais Chaabane

Department of Gynecology and Obstetrics, Hedi Chaker University Hospital, Sfax, Tunisia

***Corresponding Author:** Ameni Bouattour, Department of Gynecology and Obstetrics, Hedi Chaker University Hospital, Sfax, Tunisia.

Received: December 27, 2021

Published: April 14, 2022

© All rights are reserved by **Ameni Bouattour, et al.**

Abstract

Uterine torsions are rare obstetric complications that usually occur in the third trimester with potentially serious consequences on the mother and child, causing various management attitudes to be discussed. We describe the case of uterine torsion that occurred in a 27-year-old woman during a twin pregnancy. The diagnosis was made during caesarean section and the detorsion was performed to the left. The patient was able to return home with her healthy child. We also conducted a literature review regarding the signs and management options for this rare complication.

Keywords: Uterine Torsion; Labor; Delivery

Introduction

Unlike the animal world and especially in mares, uterine torsions in humans are relatively rare. The first cases of uterine torsion in non-pregnant patients with uterine fibroids were described by Times in 1861 and Virchow in 1863 [1]. It was in 1876 that Labbé reported the first case of uterine torsion in a pregnant patient. Since then, many cases have been reported in the literature, notably by Jensen in 1992 who collects 212 cases [2]. The cases described in the literature are usually torsions not exceeding 180 degrees, although some can go up to 720 degrees [2]. This abnormality has only been reported twice for a twin pregnancy [2]. Its clinical symptomatology remains variable ranging from the absence of symptoms to unbearable abdominal pain. His diagnosis is mostly late discovery during caesarean section. We report the case of a uterine torsion of 90 degrees during a twin pregnancy.

Clinical Case

A 27-year-old patient, second gesture, third pare, of rural origin, was followed from 12 weeks, term at which the ultrasound

of the first trimester found a bichorial, biamniotic pregnancy. In her history, we found a vaginal delivery. Ultrasounds during pregnancy showed no abnormalities. The pregnancy normally unfolds until the term of 38 weeks; the patient was admitted for discovery of high blood pressure 16/10 without signs of preeclampsia. Fetal heart rhythms were normal. The patient spontaneously entered labor. During labor, the patient described epigastric pain and right hypochondrium suggesting the occurrence of a subcapsular hematoma of the liver. Cervical examination shows edema of the lateralized cervix on the right and high presentation. An emergency caesarean section was performed; we discover a uterine torsion to the right of 90 degrees, the left uterine vascular pedicle and the left round ligament were in the middle position. A detorsion of the uterus in the abdominal cavity or levorotation was performed then segmental hysterotomy and extraction was made of both babies. Both babies had an agar 9/10. We did not note any complications intraoperatively or in the immediate postoperative period. In the exploration of the abdominal cavity we did not find a subcapsular hematoma of the liver.

Discussion

This new case of uterine torsion is original because only two other publications report uterine torsion associated with a twin pregnancy. Several difficulties arose in the face of such a diagnosis concerning the management of the patient during the caesarean section. The first difficulty was encountered following the realization of a transverse skin incision because of the absence of suspicion of diagnosis of uterine torsion. It would have been necessary to suspect the diagnosis in preoperative. However, preoperative diagnosis is usually very difficult given the rarity of this complication and the non-specific symptoms during labor.

Uterine torsion is a pathology that can occur at any term of pregnancy, although most of the time it is diagnosed during caesarean section for fetal extraction or in late pregnancy. It mainly affects women between the ages of 20 and 40, regardless of their gestures and parity [2]. In the context of a normal pregnancy, it can be found in nearly 80% of cases a physiological dextrorotation not exceeding 45 degrees [3]. In all cases reported in the literature, we preferably find a dextrorotatory rotation (two thirds of cases) to a levorotatory rotation [4]. The etiologies that can explain this pathology are multiple and varied. Among the most widely found causes:

- Situations causing asymmetry of the transverse diameter of the uterus, such as a transverse presentation (22% of cases), the presence of lateralized fibroids (21% of cases), a uterine malformation with a bicornue or bifid uterus type (11% of cases), multiple pregnancy (1% of cases);
- Ectopic pelvic tumors, especially ovarian tumors (3% of cases);

In 16% of cases, no etiology is found. Although all of these situations are present in many patients, torsion remains a very rare obstetric pathology. It is therefore legitimate to question the presence of a combination of events that would be at the origin of such a complication. Robinson and Duval, in 1931, had already put forward this hypothesis taken up by Nesbitt, *et al.* in 1956. The elements defined as being at the origin of this anomaly in a patient already predisposed would be fetal hyperactivity, false maternal movements, posture abnormalities [2,5].

The symptoms related to this pathology are very variable. In Jensen's review of the literature, it is observed that the greater the degree of torsion, the more symptoms are present [2]. The symp-

toms found are in order of frequency of intense abdominal pain (65 to 100% of cases), digestive disorders (15 to 50% of cases), cervical dystocia (11 to 100% of cases), urinary disorders (8 to 33% of cases), hemodynamic instability (6 to 100 % of cases), metrorrhagia (9-17% of cases). In some cases, on the other hand, the patient remains completely asymptomatic (14% of cases) [2]. Uterine torsion is difficult to diagnose, can be asymptomatic. Differential diagnoses are peritonitis, retroplacental hematoma, appendix torsion or uterine rupture [6]. In some cases, the help of additional examinations, such as radiology, ultrasound or MRI, has been described to help with diagnosis. In classical radiology in the context of a non-pregnant patient [7] or in ultrasound, the point of call to evoke a uterine torsion is mainly related to a change in the location of the various ancillary structures, such as the placenta [3] or fibroids between two repeated examinations at two different times. More recently, Nicholson, *et al.* defined an MRI sign that could be reliable for the diagnosis of uterine torsion [8]. In a normal uterine position, MRI contrasts of the lateral and anterior or posterior vaginal walls form an H-shaped structure. In the context of a uterine torsion the vaginal walls would take the form of X [8]. The exact diagnostic value of this sign has not yet been studied and the use of an MRI during work (as in our observation) seems illusory. However, it is quite obvious that only a diagnosis or at least a suspicion before the incision can limit the risk of performing a fortuitous posterior hysterotomy providing complications or even an incision on the lateral side of the uterus in front of a lack of observation on the part of the surgeon with a potential lesion of the uterine pedicles and ureters [9]. In practice, in the face of any diagnosis of uterine torsion, a detorsion of the uterus should be carried out if possible before extraction in order to avoid a lateral or posterior hysterotomy that can damage the uterine pedicles, as well as the ureters. If uterine rotation is impossible, it is preferable to perform a vertical hysterotomy [9,10]. However, cases of posterior hysterotomy have been described, either in case of non-diagnosis of torsion or in case of failure of detorsion.

The incidence of uterine torsion is quite low. It results in severe maternal and fetal morbidity and mortality of about 12-18% [11]. The cause of uterine torsion is not known. Uterine torsion can develop at every maternal age and week of gestation during pregnancy without an underlying cause [12]. Uterine fibroids, adnexal masses, uterine abnormalities, fetal presentation abnormalities, polyhydramnios, maternal connective tissue laxity have been reported to cause uterine torsion [13,14].

In order to reduce the rate of recurrence of uterine torsion; A round ligament plication was recommended in the early postpartum period [15] and plication of the uterosacral ligament was recommended in the late postpartum [16]. Although we did not perform any plication in our case, we did not observe any early postpartum complications.

Conclusion

Uterine torsion should be kept in mind in case of acute abdominal pain. It is important to determine the degree of torsion and the place of the uterine incision (whether the anterior wall or the posterior wall of the uterus) to avoid complications.

Bibliography

1. Ulstein MK. "Torsion of the pregnant human uterus". *Acta Obstetricia et Gynecologica Scandinavica* 48 (1969): 267-271.
2. Jensen JG. "Uterine torsion in pregnancy". *Acta Obstetricia et Gynecologica Scandinavica* 71 (1992): 260-265.
3. Kremer JA and VanDongen PW. "Torsion of the pregnant uterus with a change in placenta localization on ultrasound; a case report". *European Journal of Obstetrics and Gynecology and Reproductive Biology* 31 (1989): 273-275.
4. Carbonne B., et al. "Torsion of the pregnant uterus". *Journal of Gynecology Obstetrics and Human Reproduction (Paris)* 23 (1994): 717-718.
5. Nesbitt Jr RE., et al. "Torsion of the human pregnant uterus". *Obstetrics and Gynecology Service* 11 (1956): 311-332.
6. Piot D and Gluck M. "Torsion of the gravid uterus". *Canadian Medical Association Journal* 109 (1973): 1010-1011.
7. Norström A and Barlinn AJ. "Torsion of the non-pregnant uterus as diagnosed by X-ray". *Acta Obstetricia et Gynecologica Scandinavica* 66 (1987): 573-574.
8. Nicholson WK., et al. "Pelvic magnetic resonance imaging in the evaluation of uterine torsion". *Obstetrics and Gynecology* 85 (1995): 888-890.
9. Rich DA and Stokes IM. "Uterine torsion due to fibroid, emergency myomectomy and transverse upper segment caesarean section". *BJOG* 109 (2002): 105-106.
10. Picone O., et al. "Caesarean delivery by posterior hysterotomy due to torsion of the pregnant uterus". *Obstetrics and Gynecology* 107 (2006): 533-535.
11. Wilson D., et al. "Torsion utérine du troisième trimestre: rapport de cas". *Journal of Obstetrics and Gynaecology Canada* 28.6 (2006): 531-535.
12. Jensen JG. "Torsion utérine pendant la grossesse". *Acta Obstetrica et Gynecologica Scandinavica* 71.4 (1992): 260-265.
13. Sharma D and Usha MG. "Torsion d'un utérus non gravide: une cause rare d'abdomen aigu. Journal international de reproduction, contraception". *Obstétrique Et Gynécologie* 2.2 (2013): 234-236.
14. Kimberley Nash and Victor C. "Torsion utérine, une cause rare de douleur abdominale aiguë au cours du trimestre de la grossesse: un rapport de cas". *Journal d'obstétrique et de gynécologie* (2015): 1-2.
15. Pelosi MA and Pelosi MA. "Gestion de la torsion utérine extrême à terme. Un rapport de cas". *Journal of Reproductive Medicine* 43.2 (1998): 153-157.
16. Mustafa MS., et al. "Torsion extrême de l'utérus enceinte". *Australian and New Zealand Journal of Obstetrics and Gynaecology* 39.3 (1999): 360-363.

Assets from publication with us

- Prompt Acknowledgement after receiving the article
- Thorough Double blinded peer review
- Rapid Publication
- Issue of Publication Certificate
- High visibility of your Published work

Website: www.actascientific.com/

Submit Article: www.actascientific.com/submission.php

Email us: editor@actascientific.com

Contact us: +91 9182824667