

# Uterine torsion in pregnancy

Blanka VAVRINKOVA<sup>1</sup>, Tomas BINDER<sup>2</sup>

<sup>1</sup> University of J.E. Purkyne, Faculty of Medical Studies, Usti nad Labem, Czech Republic

<sup>2</sup> Department of Obstetrics and Gynaecology of Usti nad Labem Hospital and University of J.E. Purkyne, Faculty of Medical Studies, Usti nad Labem, Czech Republic

Correspondence to: Blanka Vavrinkova, MD., PhD.  
Pod Berankem 1439  
156 00, Prague, Czech Republic.  
TEL: +420 2723951894; E-MAIL: blanka@vavrinkova.cz

Submitted: 2015-05-19 Accepted: 2015-06-30 Published online: 2015-08-15

Key words: **uterine torsion; caesarean section**

Neuroendocrinol Lett 2015; **36**(3):241–242 PMID: 26313390 NEL360315C04 ©2015 Neuroendocrinology Letters • [www.nel.edu](http://www.nel.edu)

## Abstract

This paper describes a case of uterine torsion not only around the long, but also the horizontal axis, diagnosed post-operatively. The patient was 28-years-old, II/I in the 34th week of her gravidity. She was admitted due to amniotic fluid leak. Due to unsuccessful delivery induction using prostaglandins, a caesarean section was indicated to end the gravidity. Uterine torsion 180° around the longitudinal axis and 90° around the transversal axis was diagnosed during the surgery. The uterine wound was treated in accordance with guidelines and the patient was dismissed in a good condition. Control hysteroscopy and laparoscopy done after a time interval showed problem-free healing of the wound in the posterior uterine wall.

## INTRODUCTION

Uterine torsion is defined as uterine rotation around the long axis by more than 45°. It is a rare, but potentially dangerous complication of pregnancy. It usually appears in the 3<sup>rd</sup> trimester and is associated with unfavourable (Kovavisarach & Vanitchanon 1999). The diagnosis, and an appropriate decision on delivery management, are hindered by non-specific clinical problems of the expectant mother before the onset of delivery and rare incidence of this complication (Duplantier *et al.* 2002).

## THE CASE

A 28-year-old patient II/I in her 34<sup>th</sup> week of gravidity was admitted to the delivery room of the perinatology centre due to suspected amniotic fluid leak.

Family history was insignificant; the patient herself has never had any serious diseases. Her

menstrual cycle had been stable; 1× artificial pregnancy abortion without complications. The patient had been using Cilest for 18 months.

### Previous course of pregnancy

A bleeding episode occurred in the 16<sup>th</sup> week of gravidity, which was treated in the outpatient setting with no subsequent complications. A slight blood discharge, followed by a leak of clear amniotic fluid, developed in the evening before admission. Contractions 0; foetal movements felt.

### On admission

Speculum: Brown, lumpy, and smelly secretion in the vagina; uterine cervix smooth, without bleeding. Vagina: Arches full, adequately developed; a large part of the foetus in contact with the pelvic entrance; cervix consumed, closed. Foetus presentation – longitudinal cephalic; cardiotocography physiological; Temesváry positive. A massive leak of amniotic fluid was seen during hospitalisation.

### Therapy

Dexamethasone, MgSO<sub>4</sub>, cephazoline. After finishing dexamethasone treatment, delivery induction by prostaglandins was indicated due to subfebrilia and positive inflammatory markers. A caesarean section was indicated in the afternoon due to uterine inertia to the prostaglandins and suspected development defects of the womb.

Under calm general anaesthesia, the abdominal cavity was accessed using the Pfannenstiel incision. Bladder plica was cut through. A tense ligamentous strip, approx. 8 mm wide, was observed in the anterior uterine wall and under the uterine fundus. A Geppert incision was performed in the uterus. The foetus was extracted – female, 2090 g – and transferred for paediatric care. Apgar score 7-9-9. Uterotonic medication was administered. No hysterotomy signs were found during uterine revision; however, it was found later in the posterior uterine wall, nearly in the uterine fundus. The left fallopian tube and lig. teres uteri were significantly elongated by the pull over the anterior uterine wall. Uterine cavity revision did not show any septum or any other development defect. No myoma or other pathological objects were found in the uterus. Uterine incision suture was done using individual CTG stitches in 3 layers. Multiple bleeding episodes from the myometrium were stopped, and local prostaglandin F<sub>2α</sub> was applied in the uterine wall. Urine bladder plica was sutured, and an injury of the right lig. teres uteri was diagnosed, which was closed using vicryl suture. Adnexal parts were checked – both ovaries were broadly adjacent to the posterior abdominal wall. The peritoneal cavity was closed. The abdominal wall was sutured in anatomical layers. Blood loss about 800 ml.

Histological examination of the placenta: purulent chorioamnionitis; funicle with signs of purulent thrombovasculitis and transition of the inflammation to the surrounding tissues.

The postoperative period was complicated with subfebrile body temperature; antibiotic therapy had to be changed repeatedly. Ultrasonography did not reveal any pathological finding. The cavity was empty and no free fluid was present. The patient was dismissed home, lactating, and in a good general condition.

Control hysteroscopy was performed after a period of time – cavity regular, walls smooth, the scar in the posterior segment was not visible. Fallopian tube orifices were free, less accessible on the left. Endometrium secretion and laparoscopy – womb in an anteversion flexion. A small myoma of 1 cm was found in the left

corner. The womb was smooth, no scar or depression visible. Ovaries with gyri, fallopian tubes lean, tortuous, ampules free. Planar adhesion of an intestinal loop to the rear wall.

### CONCLUSION AND DISCUSSION

While uterine torsion during pregnancy in women is a rare complication and its management is not often seen, pregnant uterine torsion in veterinary medicine is the most commonly treated complication in mares and cows.

The first report of human uterine torsion was published by Labbé in 1876, and such cases have only rarely been published thereafter, rather as case reports. Most of the cases are not diagnosed before a scheduled or emergent caesarean section. Uterine myomas are seen often, as well as adhesions, ovaries of increased size, defective foetal position and an injury in the womb. In our case, the cause of the problem was not determined as uterine torsion developed without any pathology in a woman with a completely problem-free prior gravidity. One death of a woman with such complications was described in literature. Hysterectomy was needed on several occasions due to severe bleeding from the uterus. Information about the intraoperative finding and its management is very important for the woman due to further possible pregnancies and delivery management (Visser *et al.* 1993; Aviram *et al.* 1995; El-Taher & Hussein 2004).

#### **Author's conflict of interest disclosure:**

*The authors stated that there are no conflicts of interest regarding the publication of this article. This paper is our original unpublished work and it has not been submitted to any other journal for reviews.*

#### REFERENCES

- 1 Aviram R, Shtreitzent O, Fejgin M (1995). Posterior wall cesarean section following chronic uterine torsion. *Int J Gynecol Obstet.* **51**(1): 59–60.
- 2 Duplantier N, Begneaud W, Wood R, Dabezies C (2002). Torsion of a gravid uterus associated with maternal trauma. A case report. *J Reprod Med.* **47**(8): 683–5.
- 3 El-Taher SS, Hussein IY (2004). Unexpected torsion of the gravid uterus. *J Obstet Gynaecol.* **24**(2): 177.
- 4 Kovavisarach E, Vanitchanon P (1999). Uterine torsion with shock. *Aust NZ J Obstet Gynaecol.* **39**(3): 364–5.
- 5 Visser AA, Giesteira MV, Heyns A, Marais C (1993). Torsion of the gravid uterus. Case reports. *Br J Obstet Gynaecol.* **90**(1): 87–9.