# Torsion of Non-Gravid Uterus with Myoma Presenting to Emergency with Shock

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#### **Abstract**

Abdominal pain is one of most frequently encountered complain in the emergency; poses a diagnostic challenge for the emergency physician as differential diagnosis ranges from benign to life threatening conditions. History, vital signs and physical findings may not point a specific diagnosis and laboratory testing is often not helpful. Especially in females difficulty in physical examination and non-specific clinical picture may lead to delay in diagnosis. Sometimes patients' hemodynamic instability limits radiological intervention. Uterine torsion is a rare condition in the non gravid uterus may cause irreversible ischemic damage to the uterus, leading to rapid clinical deterioration, firstly reported by The Times in 1861 [1]. Here we report a case of a young non-gravid woman presenting with acute abdominal pain with hemodynamic instability and upon investigation, she was found to have uterine torsion of uterus due to uterine fibroid.

Keywords: Torsion; Non Gravid Uterus; Ligaments; Fornix.

## Introduction

Uterine torsion is a rare condition in non-gravid uterus. Early diagnosis and high clinical suspicion are keys to prompt identification and definitive surgical treatment of this diagnostic dilemma. Torsion is mainly due to the weakness of supporting ligaments of the uterus, sometimes associated with an intra-abdominal mass diagnosed intraoperatively.

## **Case Report**

A 27 yr old female presented to emergency with severe abdominal pain, progressive in nature associated with shortness of breath and decreased urine output since 2 days. Patient was conscious, oriented and in severe pain. She was tachycardic, hypotensive (P-102/min, BP- 70/50 mm hg) and maintaining oxygen saturation in room air. Patient denied any history of fever, chest pain, bleeding per

vagina or per rectum, previous surgeries, and any vaginal discharge. During clinical examination of abdomen she had tenderness in lower abdomen with guarding and rigidity, no palpable mass, bowel sound present and on auscultation of chest B/L decreased breath sounds with crepitations. Per vaginum examination was done showed bulky uterus, decreased mobility and tenderness of anterior fornix.

Rest systemic examination were normal. Patient was resuscitated in emergency and ionotropic support started. Her UPT was negative and other laboratory investigations were sent. Abdominal ultrasound and TVS was done which revealed a mass in the right side of tubo-ovarian complex which wasn't clearly delineated.

Patient responded well to the initial treatment and after ensuring hemodynamic stability CT–Scan of abdomen was done showed mild ascites, bulky uterus, B/L plueral effusion and no signs of perforation. The origin of large mass couldn't be delineated.

USG Abdomen-Pelvis: Uterus was not clearly visualized. A large mass measuring 9.7cm x 9.8 cm anterior to uterus in right adnexal region with specs of vascularity minimal ascites with B/L pleural effusion.

## CXR

Differential diagnoses at this point were Ruptured ectopic pregnancy, Torsion of uterus with mass, Torsion of Ovarian cyst, ARDS, Meig's Syndrome.



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**Fig. 2:** Differential diagnoses at this point were Ruptured ectopic pregnancy, Torsion of uterus with mass, Torsion of Ovarian cyst, ARDS, Meig's Syndrome

Patient was managed with I.V fluids, Ionotropic support and high end of Antibiotics, Gynaecology and Internal Medicine references were given and shifted to ICU for further intervention. Her CBC, LFT, KFT were normal, B-HCG negative and pleural fluid was negative for malignant cells. Patient's hemodynamic condition improved with support, but continued to have pain. So, decision of Emergency diagnostic laproscopy was taken which revealed bulky uterus with a large fibroid on anterior surface

leading to torsion of the uterus. Tubes and ovaries were normal. Decision of Laparotomy was taken. Detorsion of uterus was done followed by myomectomy. Base of fibroid sutured. Left round ligament plication done to prevent recurrent torsion. Diagnosis of leiomyoma with red degeneration was confirmed by histopathology. Post-operative patient was shifted to ICU, and patient made quick recovery in subsequent days.

## Discussion

Uterine torsion is mainly due to loss of stability of the supported ligaments of uterus, namely broad ligament and the uterosacral ligament by an abdominal mass in most cases. Uterine rotation on its long axis by more than 45 degrees leads to torsion. In our case, the cause of torsion was myoma on one side and the degree of torsion was 170°. This was enough to cause severe pain and ischemic necrosis in short time. Previously uterine torsion in a non-pregnant woman is difficult to diagnose pre-operatively. Nowadays with advancement of radio diagnosis provisional diagnosis can be expected early. Severe abdominal pain with hemodynamic instability prompted for the decision to do a laparotomy. our patient was in reproductive age group and there was no signs of necrosis, so decision of myomectomy was taken. Uterine torsion should be considered as a differential diagnosis in women presenting with acute abdominal pain and Emergency physician should have high degree of suspicion in all patients with acute pain abdomen to prevent fatal outcome.

#### References

- 1. Omurtag K, Session D, Brahma P, Matlack A, Roberts C. Horizontal uterine torsion in the setting of complete cervical and partial vaginal agenesis: a case report. FertilSteril 2009;91(5):1957.e13-1957.e15.
- 2. Grover S, Sharma Y, Mittal S. Uterine torsion: a missed diagnosis in young girls? J PediatrAdolesc Gynecol 2009;22(1):e5-e8.

- Jeong YY, Kang HK, Park JG, Choi HS. CT features of uterine torsion. EurRadiol 2003;13(Suppl 6):L249-L250.
- 4. Hawes CH. Acute axial torsion of the uterus. Ann Surg 1935;102(1):37-40.
- 5. Nicholson WK, Coulson CC, McCoy MC, Semelka RC. Pelvic magnetic resonance imaging in the evaluation of uterine torsion. ObstetGynecol 1995;85(5 pt 2):888-890.
- P. Gule, R. Adjobi, E. Nguessan et al., "Uterine torsion with maternal death: our experience and literature review," Clinical and Experimental Obstetrics and Gynecology, 2005;32(4):245–246.