

## Case Report: Isolated Tubal Torsion Combined With Contralateral Tubal Ectopic Pregnancy

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### ÖZET

**Olgu Sunumu: İzole Tubal Torsiyon İle Kombine Kontralateral Ektopik Gebelik**

*Bu yazıda unruptüre tubal ektopik gebelikle beraber kontralateral tubal torsiyonu olan olgunun semptomları, tanısı ve tedavi stratejileri tartışılmıştır.*

**Anahtar Kelimeler:** Ektopik Gebelik, Tubal torsiyon, Akut abdominal ağrı

### SUMMARY

**Case Report: Isolated Tubal Torsion Combined With Contralateral Tubal Ectopic Pregnancy**

*A case of isolated tubal torsion combined with contralateral tubal ectopic pregnancy is presented and symptoms together with diagnosis and treatment strategies are discussed reviewing relevant literature.*

**Key Words:** Ectopic pregnancy, Tubal torsion, Acute abdominal pain

### INTRODUCTION

Isolated tubal torsion, a rarely encountered entity is usually diagnosed during laparotomy. The most common presenting symptom is lower abdominal pain. Predisposing factors for tubal torsion are hydrosalpinx, prior tubal surgery, pelvic congestion, ovarian and paraovarian masses, trauma and long fallopian tubes.(1,2) Acute abdominal pain in pregnancy may suggest a differential diagnosis of tubal torsion if the patient gives a history of prior pelvic surgery or pathology.(3) In this case report, we present a case of isolated tubal torsion combined with contralateral ectopic pregnancy and discuss symptoms, diagnosis and treatment strategies.

### CASE REPORT

A 32 year old patient, gravida 4, para 2, abortus 2, living children 2 presented to the Gynecology and Obstetrics emergency department with symptoms of abdominal pain, cold sweating, weakness and nausea accompanied by subconsciousness. Her medical history revealed an episode of pelvic inflammatory disease (PID) 3 years ago. Her blood pressure was 70/10 mmHg and pulse beat 120/min. Abdominal examination revealed generalized abdominal tenderness in all four quadrants accompanied with rebound and guarding. Gynecologic examination showed cervical motion tenderness, a tender uterus and bilateral

adnexial tenderness with a bulging pouch of Douglas. The size of the uterus and ovaries could not be estimated because of guarding and pain. Laboratory results included a hemoglobin level of 8,2 g/dl, hematocrite of 24,6%, white blood cell count of 7,400/L, MCV of 9,7 fl and positive pregnancy test. A pelvic ultrasound showed a 72x45x40 mm sized uterus with normal ovaries and accompanying fluid extending into the pouch of Douglas. Emergency exploratory laparotomy was performed upon these findings. Exploration revealed approximately 1000 cc of blood in the abdomen with torsion of the distal half of the left tube. Hemorrhage was present in the ruptured distal half from enlarged varicose veins.

The proximal part of the tube which hadn't ruptured showed varicose veins, edema and hyperemia. Both mesosalpinx revealed dilated varicose veins, the left being more prominent. A mass of size 1x2x1 cm which was thought to be an unruptured ectopic pregnancy was present in the right fallopian tube. Both ovaries were normal. As the peroperative diagnosis was bilateral ectopic pregnancy, right salpingectomy and left salpingostomy was performed. The patient recovered well and was discharged on the third day after surgery. The final histopathology report showed vascular congestion, dilated varicose veins

and massive hemorrhage consistent with tubal torsion. In histopathologic evaluation the material was blocked with parafin and all blocks were evaluated by two different pathologists twice. No evidence of pregnancy was reported in the left tube. However the histopathologic result for the right fallopian tube was tubal ectopic pregnancy.

## **DISCUSSION**

Isolated tubal torsion is a rare gynecologic pathology, first described by Sutton in 1890. 80% of tubal torsions are encountered during the reproductive ages although seldom seen during the pre and postmenopausal periods and menarche .(4,5) About 20% of tubal torsion cases are seen during pregnancy.(2) Tubal torsion is reported to have an incidence of 1/1,500,000 per year in a review of all gynecological operations and surgical cases of a 10 year period in Denmark.(1,2,6,7) Clinical symptoms of tubal torsion resemble those of ovarian torsion usually without accompanying pelvic mass.(4)

Torsion generally occurs in abnormal fallopian tubes; however cases without predisposing factors are also presented in the literature including reasons like long fallopian tube, hypermotility in the mesosalpinx or mesovarium, pelvic congestion due to straining during defecating in constipation, venous congestion in adnexal structures resulting in partial obstruction of circulation, increases in the weight of the tube resulting in impaired venous return and presence of a heavy ovary hanging down the broad ligament with a pedicle. Intrinsic etiologic factors affecting the structure of the tube include longer tubes, hemato and/or hydrosalpinx; tubal neoplasms, previous tubal ligation, incomplete distal mesosalpinx and anatomic abnormalities showing abnormal tubal peristalsis. Extrinsic factors include ovarian or paraovarian masses, enlargement of uterus due to pregnancy or tumours, sudden changes in body position or trauma, pelvic congestion (torsion is frequently encountered during the premenstrual or ovulatory period and pelvic congestion is usually attributed to engorgement of adnexal structures or constipation) and abnormal peristalsis and spasm of the tube due to certain drugs.(2,8) No etiologic factors were present in our case except history of PID.

Usually the only presenting symptom of tubal torsion is lower abdominal pain. Ultrasonography and laboratory findings may be helpful in diagnosis. The differential diagnosis of pregnant women or patients with history of previous pelvic pathology or surgery with lower abdominal pain should include tubal torsion.(1,2,6,7) A case of a 13-year-old girl with isolated tubal torsion resulting in tubal rupture has been reported in the literature.(5)

Early laparoscopy is the gold standard in diagnosis and treatment.(3) The most important symptom may be lower abdominal pain accompanied by nausea, vomiting and progressive tenderness with hypovolemic shock symptoms due to hemorrhage , as seen in our case. WBC, ESR may be normal or slightly elevated.(6,7,9,10) WBC and ESR were normal in our case. Tubal torsion is seen 2 or 3 times more frequently in the right tube. However, tubal torsion was seen in the left tube in our case. The reason of the high rate of right tubal torsion is thought to be due to prevention of torsion by the sigmoid colon on the left side and hypermotility of the caecum and ileum on the right side. Slow venous flow on the right side also results in congestion.(9,11)

Differential diagnosis is very difficult and should include adnexal torsion, acute appendicitis, ectopic pregnancy, ruptured ovarian cysts, urolithiasis, degenerated leiomyomata and ablatio placenta . Tubal torsion is usually identified peroperatively.(7,9,10) Tubal torsion can mimic adnexal torsion ultrasonographically. Especially acute appendicitis can often be confused with right tubal torsion.(12) Early diagnosis during laparoscopy can serve to save adnexal structures if adnexal or isolated tubal torsion is included in differential diagnosis.(3) Histopathologic results often include edema, vascular congestion and also hemorrhaged infarction, areas of hemorrhage and necrosis depending on the time of diagnosis. Detorsion may be attempted if the tube doesn't show signs of necrosis and hemorrhaged infarction.(4) Tubal torsion may cause varicose veins in the mesosalpinx to rupture and mimic ectopic pregnancy causing massive hemorrhage resulting in hypovolemic shock. In our case preoperative diagnosis was ectopic pregnancy with hypovolemic shock but peroperative findings were evaluated as bilateral

tubal ectopic pregnancy with left ruptured and right unruptured tubes. However, our case was unique because histopathologic results showed right unruptured ectopic pregnancy with left tubal torsion.

Tubal torsion should be considered in the differential diagnosis of pregnant women and especially if there is a history previous pelvic pathology and/or surgery. Early diagnosis is crucial in preserving ovaries. Tubal torsion usually encountered in intrauterine pregnancy but also rarely in ectopic pregnancies. Evidence of rupture and massive hemorrhage should not exclude tubal torsion.

### **REFERENCES**

1. Russin LD. Hydrosalpinx and tubal torsion: A late complication of tubal ligation. *Radiology* 1986; 159:115-6.
2. Dueholm M, Praest J. Isolated torsion of the normal fallopian tube: A case report. *Acta Obstet Gynecol Scand* 1987; 66:89-90.
3. Krissi H, Shqleu J. Fallopian Tube torsion: Laparoscopic evaluation and treatment of none gynecological entity. *J Am Board Fam Pract* 2001; Jul-Aug;14(4):274-7.
4. Chambers JK, Thagarajah S, Kitchin JD. Torsion of the normal fallopian tube in pregnancy. *Obstet Gynecol* 1979; 54:487-9.
5. Fereea PC, Kass LE. Torsion of the fallopian tube. *Am J Emerg Med* 1995; 13(3):312-4
6. Mc Kenna PJ, Gerbert KH. Isolated torsion of the uterine tube in pregnancy: A case report. *J Reprod Med* 1989; 34:187-8.
7. Sally LI, Weber T. Torsion of the fallopian tube during pregnancy: A case report. *Acta Obstet Gynecol Scand* 1985; 64:349-51.
8. Ward MJ, Frazier TG. Torsion of normal uterine adnexa in childhood: A case report. *Pediatrics* 1978; 61:573-4.
9. Vierhout ME, Wallenburg HC. Torsion of the fallopian tube; A case report of bilateral non-simultaneous torsion and review of the literature. *Eur J Obstet Gynecol Reprod Biol* 1986; 23:111-5.
10. Sorem KA, Bengtson JM, Walsh B. Isolated fallopian tube torsion presenting in labor: A case report. *J Reprod Med* 1991;36:763-4.
11. Nichols DH, Julian P. Torsion of the adnexa. *Clin Obstet Gynecol*, 1985; 28:375-80.
12. Yalçın OT, Hassa H, Zeytinoğlu S, Işıksoy S. Isolated torsion of fallopian tube during pregnancy; Report of two cases. *Eur J Obstet Gynecol Reprod Biol* 1997; 74:2, 179-82.