



ROLE OF ULTRASONOGRAPHY IN OVARIAN TORSION

Radiodiagnosis

Dr Pallavi Kar* Third year resident, Department of Radio-diagnosis. *Corresponding Author

Dr Pradip Jhala HOD & Professor, Department of Radio-diagnosis, Smt. B'K Shah Medical Institute & Research Centre, Sumandeep Vidyapeeth'.

ABSTRACT

Ovarian torsion is defined as partial or complete rotation of the ovarian vascular pedicle and causes obstruction to venous outflow and arterial inflow. Ultrasonography (US) is the primary imaging modality for evaluation of ovarian torsion.

This article presents 3 cases of pathologically confirmed ovarian torsion diagnosed on ultrasound and their characteristic imaging appearance.

KEYWORDS

INTRODUCTION

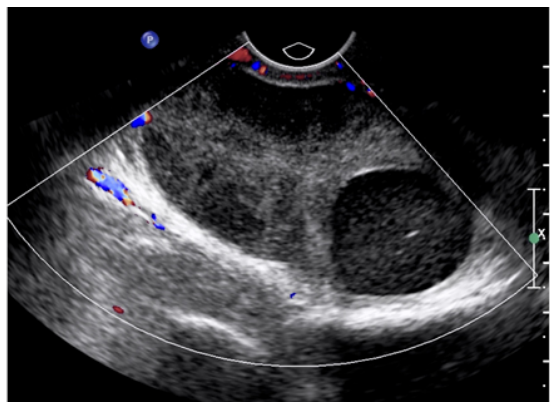
Ovarian torsion is the fifth most common gynecologic surgical emergency. The varied imaging features and nonspecific symptoms of ovarian torsion can lead to a delay in identification, with misdiagnosis being common. Early recognition and restoration of blood flow are important to avoid irreversible ovarian damage. However, heightened awareness and suspicion of this condition are needed for timely intervention.

AIMS AND OBJECTIVES

- To evaluate the radiological features of ovarian torsion in females presenting with severe unilateral lower abdominal pain which worsened over period of hours.
- Role of ultrasonography and Doppler in the evaluation of ovarian torsion.

MATERIAL AND METHODS

In this case series patients with severe unilateral lower abdominal pain with nausea and vomiting and were suspected of ovarian torsion were included and were taken up for pelvic sonography and Doppler evaluation.



CASE 1:

26 year old female patient came with sudden onset right sided lower abdominal pain which radiated to the back and associated with vomiting.

features-On USG ovary appears bulky, ovarian volume was approximately 35 cc.

- Well defined heterogeneously hypoechoic lesion with mural component was seen which suggested possibility of ovarian dermoid cyst. There was no detectable vascularity on colour Doppler.

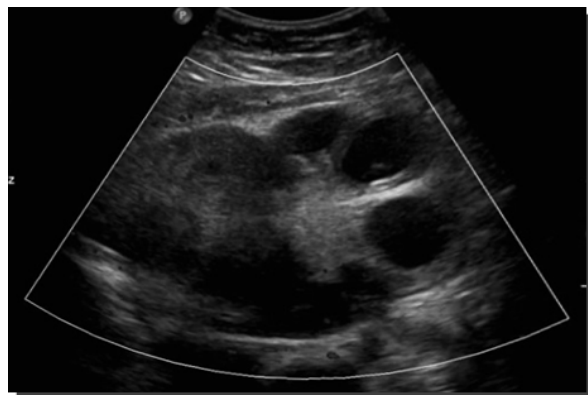
findings suggested right ovarian torsion secondary to ovarian dermoid cyst.

CASE 2:

31 year old patient undergoing ovulation induction who developed

ovarian hyper stimulation syndrome presented with sudden onset lower abdominal pain, fever and vomiting.

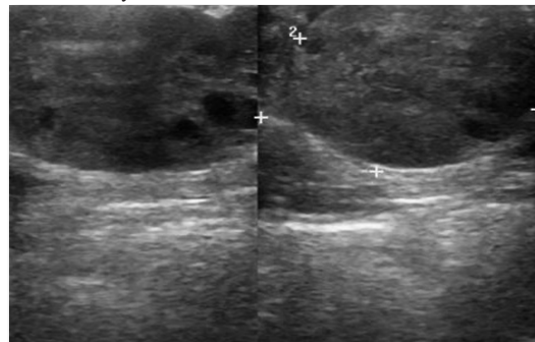
On ultrasonography ovary was massively enlarged, ovarian volume measured approximately 75 cc. The ovary was centrally placed in the pelvis. Ovarian follicles were peripherally displaced. On colour Doppler very minimal blood flow was detected. Free fluid was noted in the pouch of Douglas.



CASE 3:

8 year old premenarcheal female presented with generalised pain abdomen radiating the thigh region with nausea and vomiting. The patient had previous episodes of sudden onset of lower abdominal pain which resolved on its own.

On ultrasonography ovary was enlarged with hypoechoic areas within. No detectable flow was seen in the ovary. Enlarged pedicle seen attached the ovary.



DISCUSSION-

- ovarian torsion is the fifth most common cause of acute abdomen in young women. Ultrasound and Doppler are the primary modalities of investigation.

On ultrasonography the ovary appears enlarged which is the most common sonographic feature of torsion. This is secondary to impaired venous and lymphatic drainage.

Ovarian follicles are usually displaced peripherally . Irregular echogenic areas are seen secondary to hemorrhage.

Colour Doppler is helpful in predicting the viability of the ovary. The first feature on colour Doppler is no intraovarian venous flow followed by no intraovarian arterial flow.

Torsion occurs due to two main causes that is adnexal masses like dermoid cyst (most common cause), paraovarian cyst , large ovary undergoing ovarian hyperstimulation, ovarian malignancy etc.The other common cause is hypermobility of ovaries in premenarcheal women.

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