

Omental torsion in pregnant woman: A case report and review of literature

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ABSTRACT

Omental torsion is a rare cause of acute abdomen which is frequently diagnosed intraoperatively. We report a case of 23-year-old pregnant woman who presented to our hospital with right lower quadrant pain. She underwent laparotomy for probable diagnosis of appendicitis or ovarian torsion. A gangrenous mass of greater omentum was found. Partial omentectomy was performed and recovery was uneventful. Omental torsion as a rare cause of acute abdomen should be considered in differential diagnosis in pregnant women.

KEY WORD: Omental torsion, Pregnancy, Omentum, Infarction.

Pak J Med Sci January - March 2012 Vol. 28 No. 1 206-208

How to cite this article:

Ouladsahebmadarek E, Vaez M, Pouya K. Omental torsion in pregnant woman: A case report and review of literature. Pak J Med Sci 2012;28(1):206-208

INTRODUCTION

The first case of omental torsion was reported in 1899 by Eitel.^{1,2} Omental torsion is a rare condition which results in acute abdomen. About 85% of reported cases were in adults. Male to female ratio is 2.85: 1 and more frequently occurs on the right side of great omentum. Significant number of patients were diagnosed during surgery and resection of twisted part of omentum was performed.^{3,4}

We present a 26 weeks pregnant woman with RLQ pain which was finally diagnosed as secondary omental torsion.

CASE REPORT

A 23-year-old pregnant woman presented to our hospital with acute abdominal pain of 24 hours duration. The pain had colic pattern and localized to right lower quadrant of abdomen. There were no associated symptoms like nausea, vomiting, dysuria, diarrhea or fever. The vital signs were normal except for pulse rate (PR=108/min). On physical examination she was 26 weeks pregnant with normal fetal heart rate. She looked a little pale and had rebound tenderness and guarding in palpation of RLQ of abdomen.

In past medical history she had minor Thalassemia and undergone splenectomy 12 years ago due to trauma. Laboratory tests were in normal limits. White blood cell count was 10500/ml and PMN=60%. Ultrasonography revealed a normal 27 weeks fetus without retroplacental hematoma. Right kidney and ureter were normal. Right ovary was enlarged about 48*50 mm and very tender under probe.

The patient underwent laparotomy for acute abdomen because of appendicitis or ovarian torsion. On operation a 5*6 cm gangrenous mass adhered to parietal peritoneum in previous midline scar of abdomen was found. The mass was torsion of right lower segment of omentum (Fig.1). Partial omentectomy was performed. Pathologist reported

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- * Received for Publication: May 30, 2011
- * Accepted: November 20, 2011



Fig.1: Torsion of right lower segment of omentum.

infarcted omental tissue with large thrombotic vessels. The patient was discharged from the hospital on third day with good condition.

DISCUSSION

Acute abdomen because of omental torsion is a rare entity. Preoperative diagnosis is a challenge and mistaken with appendicitis, cholecystitis, diverticulitis, pancreatitis, epiploic appendagitis, incarcerated hernia, duodenal ulcer, ovarian torsion and ectopic pregnancy.^{4,6} Omental torsion may be primary or secondary and even omental infarction may occur without torsion, known as primary idiopathic segmental omental infarction. Primary torsion of omentum reported in about 270 cases.

Predisposing factors are anatomical variations in the omentum and displacement of omentum caused by trauma, heavy exertion, hyperperistalsis, obesity, overeating, sudden change in body position, coughing, sneezing, excessive strain, laxatives and use of occupational vibrating tools. Two third of cases are a result of secondary torsion. There is underlying abdominal pathology such as adhesions, hernia sacs, ovarian cysts, tumor, inflammation and surgical scar.^{1,3,5-7} Most of the patients with omental torsion present with right lower quadrant (RLQ) pain, and may have nausea, vomiting, low grade fever or leukocytosis which are nonspecific.^{5,6}

Although ultrasonography and computed tomography (CT) have been suggested as diagnostic tools, in most cases diagnosis was made intra operatively.^{3,8} The characteristic findings on CT are a fat density mass, showing a whirling pattern of concentric streaks (whirl sign) and vascular pedicle sign.^{9,10} Currently, laparoscopy is reported as a minimally invasive and useful tool for diagnosis and management of omental torsion or infarction.^{2,5,7,11}

There are a few reports of omental infarction or torsion in pregnancy using Pubmed review of literature. We found seven articles from 1955 to 2000. Unfortunately the articles were in Polish or Russian or too old to have access to abstracts or full texts. Four of seven patients were full term pregnant and one of them was in 17 weeks of pregnancy and two cases were omental infarction in pregnancy.¹²⁻¹⁸

The diagnosis of acute abdomen in pregnancy is very important and difficult. Pregnant women usually complain of lower abdominal pain and experience Braxton-Hicks contractions from 2nd trimester. They also have nausea and vomiting from first trimester which can extend to 2nd trimester of pregnancy. All cases were middle aged women and diagnosed at laparotomy and removed infarcted segment of omentum.

Recent studies have shown that patients with CT diagnosed omental torsions, successfully treated conservatively without any complications and long term follow up with ultrasonography and CT scan confirmed decrease in the size of the infarcted lesions and symptoms gradually disappeared.^{2,3,10,11,19} Soobrah R et al reviewed literature regarding conservative management of segmental omental infarction (SOI) and found 54 of 64 patients underwent successful conservative management with no ensuring complications. Reported disadvantages were longer hospitalization and the increased use of analgesics.²⁰ Possibly rare complications of conservative treatment may be persistent pain, intestinal obstruction, abscess formation and adhesion.³ However, there is no place for conservative therapy in apparently acute abdomen during pregnancy and usually surgical intervention is required.

CONCLUSION

Regarding limitation of using radiological imaging during pregnancy it seems that laparoscopy be a safe and useful diagnostic as well as treatment modality in women under 20 weeks of pregnancy with acute abdomen. Otherwise explorative

laparotomy should be performed and infarcted or twisted segment of omentum must be resected.

Source of Funding: Women's Reproductive Health Research Centre, Tabriz University of Medical Sciences, Tabriz, Iran.

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