

Case Report

Primary Torsion of the Omentum: Laparoscopic Diagnosis and Resection

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Kuwait Medical Journal 2007, 39 (1): 74-75

ABSTRACT

Primary torsion of the omentum is a rare cause of acute right-sided abdominal pain. In most cases the patient is presumed to suffer from appendicitis or cholecystitis. Although some radiological signs might suggest primary torsion of the omentum, this rare condition is diagnosed

perioperatively.

We report a case of primary torsion of the omentum which was diagnosed and resected by laparoscopic assisted approach.

KEY WORDS: acute abdomen, laparoscopy, omental torsion

INTRODUCTION

Primary torsion of the omentum (PTO) is a rare cause of acute abdomen. The clinical symptoms mimic acute appendicitis, acute cholecystitis, diverticulitis or gynecological problems. We report a case of PTO diagnosed and resected by laparoscopic assisted approach.

Case report

A 54-year-old lady, known case of IDDM and hypertension, presented to us with a four day history of progressive severe right upper quadrant pain. There was no nausea or vomiting and any change in bowel habit. On physical examination she was afebrile and had a tender mass in the right upper quadrant (RUQ). All her hematological and biochemical investigation were normal. She was admitted with clinical diagnosis of gallbladder mass. Urgent abdominal ultrasound showed normal gall bladder, but also showed a hyperechoic lesion in the subhepatic area measuring 14 x 8 cm suggestive of a right colonic lesion. CT abdomen showed signs of right sided omental edema which could be due to ischemia or an inflammatory cause.

Next morning the patient was still having severe RUQ pain. A diagnostic laparoscopy was decided. A 10 mm port was inserted at the umbilicus and two additional 5 mm ports were inserted in the left upper quadrant (LUQ) and right iliac fossa (RIF). Laparoscopy showed large infarcted mass attached to the anterior abdominal wall and the liver. The mass was mobilized from its attachment, divided below the point of the torsion and transfixed with vicryl suture. The resected omentum was delivered

through the umbilical port after extending it. The abdominal cavity was laparoscopically irrigated with saline. The patient made an uneventful recovery and was discharged home on the second postoperative day.

DISCUSSION

Eitel first described omental torsion in 1899. Since then, less than 250 cases were reported in the literature^[1]. PTO is a disease that usually occurs in the fourth and fifth decade of life. Men are affected twice as frequently as women^[2].

Omental torsion is either primary or secondary. Primary idiopathic torsion is rare and occurs in the absence of any intra-abdominal pathology. Secondary omental torsion is always associated with abdominal pathology including tumours and cysts, post-surgical or scarring and hernia sacs^[3]. The pathogenesis of PTO is obscure, but there are some recognised predisposing factors such as an anatomical variation of the omentum (malformation of the omentum pedicle, tongue like projection along its free edge, bifid omentum, accessory omentum and omental adiposis associated with obesity), trauma, exercise, straining and over-eating^[4,5].

Because of the absence of typical symptoms, the diagnosis is neither made nor considered preoperatively. The main complaint associated with PTO is sudden onset of acute abdominal pain and signs of peritoneal irritation on the right side of the abdomen. The condition may be associated with nausea, vomiting and low grade fever. An abdominal mass may be palpable in half of the

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cases.

This right-sided acute abdominal pain and tenderness is often mistaken for acute appendicitis, acute cholecystitis or torsion of an ovarian cyst^[1].

Ultrasound and CT scan can help to establish the diagnosis and assist in the exclusion of appendicitis or cholecystitis. The typical changes seen on the ultrasound include a solid hyperechoic lesion, corresponding to the inflamed fatty masses with hyperattenuating streaks in CT scan^[6].

The recommended treatment is surgical resection of the infarcted omentum.

The advent of laparoscopy for acute abdominal pain allows inspection of the entire abdominal cavity and helps in correct diagnosis and management.

Chung *et al* in 1992 described laparoscopic resection of PTO. However, the omentum was removed piecemeal^[7]. Gassner in 1999, described two methods of management. One is ligating the omentum externally after delivering it through an extended umbilical port site. The second method is ligating it internally, placing the specimen in a bag and delivering the bag via the extended umbilical port site^[8]. Both these methods are simple, fast and avoid contaminating the abdominal cavity with

fragmented tissues.

CONCLUSION

The diagnosis of omental infarction is difficult and rarely made before surgery. The laparoscopic approach allows for careful and thorough exploration of the abdominal cavity with the possibility of surgical intervention. Laparoscopic resection of omental infarction is the therapy of choice as it ensures fast recovery and pain control.

REFERENCES

1. Saber AA, Laraja RD. Omental infarction. E-medicine journal 2001; 2:. www.emedicine.com.
2. Bassin SE, Jone BA. Primary torsion of the omentum. Ann R Coll Surg Engl 1981; 63:132-134.
3. Sarac AM, Yegen C, Aktan O, Yalin R. Primary torsion of the omentum mimicking acute appendicitis: Report of case. Surg Today 1997; 27:251-253.
4. Ozbeg H, Salman T, Celik A. Primary torsion of the omentum in a 6 year old boy: report of a case. Surg Today 1999; 29:568-569.
5. Adams JT. Primary torsion of the omentum. Am J Surg 1973; 126:102-105.
6. Puyloert JB. Right-sided segmental infarction of the omentum: clinical, US and CT findings. Radiology 1992; 185:169-172.
7. Chung SCS, Ng Kw, Li Akc. Laparoscopic resection of primary omental torsion. Aus NZ J Surg 1992; 62:400-401.
8. Gassner PE, Cox MR, Creban PC. Torsion of the omentum: diagnosis and laparoscopic resection. Ann NZ J Surg 1999; 69:466-467.