Torsion of carcinomatous ovarian cyst and polycystic omental diseases - case report

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Summary

A middle-aged patient, without any positive personal or familial history was urgently hospitalized and, after primary diagnostic procedures, treated by surgery for torsion and acute abdomen. During the procedure, torsioned ovarian cyst and a probable perforated omental cyst were found. Primary ovarian cancer and secondary polycystic metastatic echoes of the omentum were established by histopathology.

Key words: Torsion; Carcinomatous ovarian cyst; Cyst perforation; Polycystic omental disease.

Introduction

Cysts of the omentum are rare. The pathogenesis of these lesions is unclear, but presumably most true cysts are caused by obstruction of lymphatic channels or by growth of congenitally misplaced lymphatic tissue that does not communicate with the vascular system [1-3]. The cysts contain serous fluid and may be unilocular or multilocular. They have an endothelial lining similar to cyst lymphangiomas found elsewhere. Their size may vary from a few centimeters to over 30 cm in diameter. Dermoid cysts, which are very rare, are lined with squamous epithelium and may contain hair, teeth and sebaceous material [4-6].

Pseudocysts of the omentum result from fat necrosis, trauma with hematoma or foreign body reaction. They have a fibrous and inflammatory lining and usually contain cloudy or blood-tinged fluid [7-9].

Plain radiographs sometimes show circumscribed soft tissue haziness in the abdomen, or, after a barium meal, there may be displacement of intestinal loops with pressure on the adjacent bowel. The presence of bone or teeth is diagnostic of a dermoid cyst.

Ultrasonography (US) or computed tomography (CT) shows a fluid-filled mass that often contains internal septations [10].

The differential diagnosis includes cysts and solid tumors of the mesentery, peritoneum, and retroperitoneal region. An absolute diagnosis can be made only at the time of exploratory surgical procedures and treatment consists of local excision [11].

Case report

A 48-year-old patient, without any positive personal or familial history, was urgently hospitalized and treated by surgery because of torsion and acute abdomen. During the procedure, a torsioned ovarian cyst and probable perforated omental cyst were found. Complete hysterectomy with omentectomy was performed. Primary ovarian cancer and secondary polycystic metastatic echoes of the omentum were established by histopathology.

True omental cysts are discovered most frequently in children or young adults but have been reported in the aged [1]. Small cysts are generally asymptomatic and discovered incidentally at laparotomy or at autopsy [3]. Large cysts present as a palpable abdominal mass or produce diffuse abdominal swelling. These may cause symptoms of heaviness or pain or manifestations of possible complications of omental cysts such as torsion, infection, rupture, or intestinal obstruction. Complications are more frequent in children and often produce a clinical picture of an acute surgical condition of the abdomen [5]. The uncomplicated omental cyst usually lies in the lower mid abdomen and is freely movable, smooth, and non-tender [6].

The incidence of tumefaction rupture in our case, which turned out to be cystadenocarcinoma, is a sign of inadequate primary healthcare. After surgery, the following analyses were performed: CA125 (380 U), CA19-9 (170 U), thrombocytes (480,000) and sedimentation (80). The fact that carcinomas protrude outside their usual borders requires routine establishment of all additional parameters in each and every suspected ovarian finding in women over 40 years of age. By timely diagnosis through laboratory analyses, the necessity of urgent surgery could be avoided as well as possible complications by means of an earlier surgical procedure.

Discussion

The most common solid tumor of the omentum is metastatic carcinoma which generally involves the omentum by tumor implantation [7]. The primary source is usually the colon, stomach, pancreas, or ovaries. Frequently there is associated ascites, presumably from "weeping" of serous or blood-tinged fluid from the metastatic implants [8]. Diffuse neoplastic infiltration of the greater omentum produces a distinctive CT scan of a soft tissue mass ("omental cake") separating the colon or small intestine from the anterior abdominal wall.

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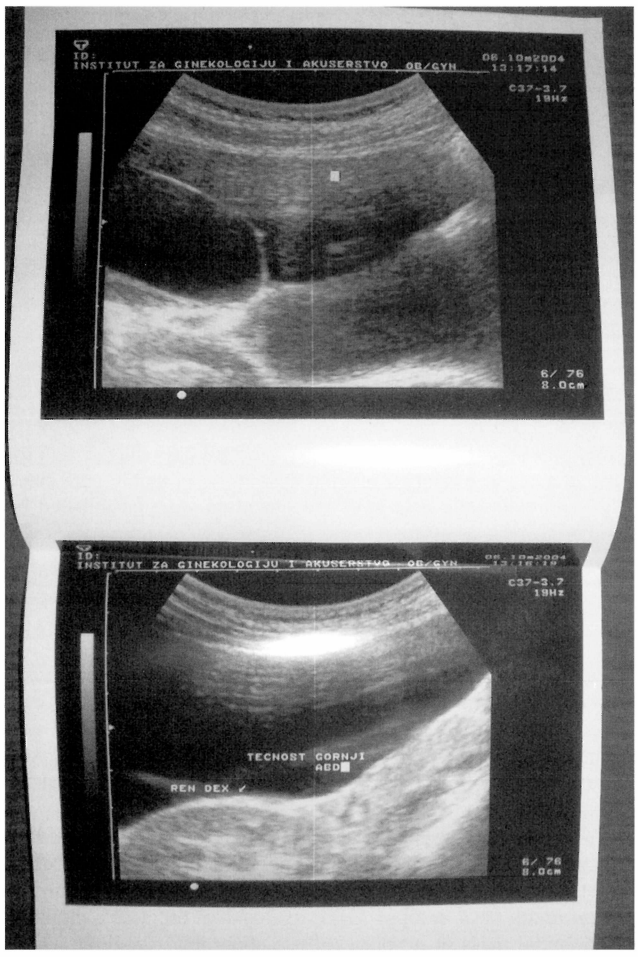

Figure 1. — Ultrasound of carcinomatous ovarian cyst.

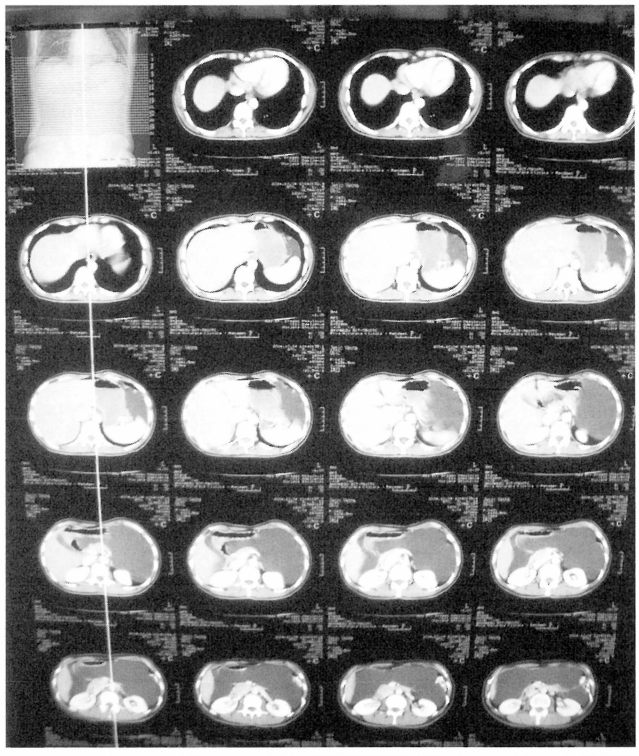

Figure 2. — Scan of pelvis.

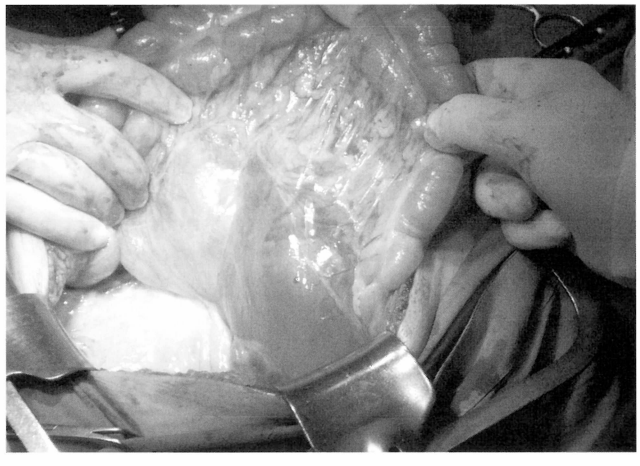

Figure 3. — Surgery - carcinomatous ovarian and omental cysts.

Primary solid tumors of the omentum are exceedingly rare. They may be benign or malignant. Stout and colleagues recorded only 24 cases over a 55-year period at a major tumor institution [2]. Most are of mesenchymal origin and about one-half are malignant. Benign tumors consist of lipomas, leiomyomas, fibromas, and neurofibromas. Leiomyosarcoma and hemangiopericytoma are the most common malignant tumors which spread by direct extension or tumor implants and kill by involvement of vital abdominal organs [4]. The mean age of patients with primary omental tumors is in the fifth decade [10]. Although some patients are symptom-free, about one-half present with a complaint of vague abdominal pain. A palpable abdominal mass is present in one-third of patients [9].

The only treatment is surgical excision. Primary malignant tumors are highly invasive and often require resection of adjacent organs as well as total omentectomy. The prognosis for these is very poor [3]. Resection of benign tumors is curative, and recurrences have not been reported. Palliative omentectomy for metastatic tumor implants in the omentum has been suggested to control any associated ascites [11].

Conclusion

Due to rupture of the omental cystic mass inducing acute abdomen in our patient, we did not have enough time to analyze the origin of the cyst and by urgent surgery we removed the ovarian carcinoma and genital organs as well as the described secondary omental changes.

A deceptive clinical picture of benign and malignant conditions without a complete diagnosis may lead not only to urgent surgeries but also to increased mortality and morbidity. It is necessary to increase the level of primary healthcare and use US and specific tumor markers as routine diagnostic procedures.

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