

CONTINUING MEDICAL EDUCATION ΣΥΝΕΧΙΖΟΜΕΝΗ ΙΑΤΡΙΚΗ ΕΚΠΑΙΔΕΥΣΗ

Surgery Quiz - Case 1

An 86-year-old woman presented at the emergency department of our hospital with diffuse abdominal pain, vomiting and low grade fever. Symptoms began 24 hours ago and gradually worsened. Abdominal pain was initially located in the middle line above the umbilicus and rapidly spread to the right upper quadrant (RUQ), reflecting to the ipsilateral scapula and lower thoracic spine. A few hours later the abdominal pain was characterized as diffuse. Vomiting first occurred after the onset of pain, was repeated several times and contained gastric fluid with no blood admixture. Low grade fever up to 38°C was also present and verified at the emergency department. No specific medical history or prior abdominal surgery was reported. The patient was on antihypertensive regimen for the last decade. Clinical examination revealed abdominal tenderness with marked guarding at the RUQ and a positive Murphy sign on palpation. Tachycardia was also present. CBC (complete blood count) and serum biochemical analysis revealed moderate leukocytosis (12,500/ μ L) with increased number of neutrophils (80%) and normal biochemical values. Plain abdominal radiograph was not diagnostic and an ultrasound examination of the upper abdomen was performed. Gallbladder wall thickening (5 mm) with subserosal edema and gallbladder distention, pericholecystic fluid and a positive sonographic Murphy sign were reported. No obvious cause of obstruction was observed. Based on clinical and radiologic findings, the diagnosis of acute cholecystitis was established. The patient was admitted in our clinic and received medical treatment with a double intravenous antibiotic regimen consisting of a second generation cephalosporin (cefoxitin) and an antianaerobic agent (metronidazole) for one week. Surgical intervention was excluded at this time because of the age and severity of inflammation and the absence of an obvious obstructive cause. The patient was discharged in good clinical condition with the prescription of an oral antibiotic regimen for one week.

Twenty days after hospital discharge, however, the patient presented once more at the emergency department with the same clinical presentation. Clinical examination and laboratory tests were consistent with the previous findings and she was readmitted in our clinic. At this time a computed tomography (CT) scan of the abdomen was performed which revealed the presence of a mass within the gallbladder, arising from its anterior wall and occupying half or more of the organ's lumen in transverse sections, and gallbladder distention with pericholecystic edema (fig. 1). CT findings were compatible with gallbladder malignancy. The patient underwent laparoscopic cholecystectomy which was laborious due to severe inflammation. Examination of the surgical specimen revealed purulent content (gallbladder empyema) and occult perforation of the gallbladder wall. Histological examination showed a benign adenomatous gallbladder polyp without evidence of malignant transformation. The patient received appropriate antibiotic treatment and was discharged two days postoperatively.

Comment

Gallbladder tumors are quite rare accounting for less than 3% (benign lesions) or 1% (malignant lesions) of the surgical specimens in patients undergoing laparoscopic cholecystectomy. Cholesterol polyps account for approximately 50% of all polypoid lesions of the gallbladder and are formed due to a defect in cholesterol metabolism. Their size is usually smaller than 10 mm in diameter and in most cases they are asymptomatic. Gallbladder adenomas can be sessile or polypoid and are considered as premalignant lesions. A size greater than 12 mm increases the risk of malignant transformation.

Early diagnosis of gallbladder tumors is rare due to the insidious nature of the disease. In most cases an incidental finding during cholecystectomy or clinical presentation of a complication raise suspicion of gallbladder pathology. The presence of a polypoid mass fixed to the

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Figure 1. Abdominal CT scan section of an 86-year-old woman presenting with a neoplastic lesion of the gallbladder (arrow). Tumor dimensions on CT image were 3×3×4.5 cm.

gallbladder wall of normal thickness or wall thickening alone should raise suspicion of a neoplasm, although in many cases coexistence of benign gallbladder disease (e.g. cholelithiasis) is sufficient to explain the symptoms and, thus, the tumor is diagnosed only at exploration or pathologic examination of the resected gallbladder.

Computed tomography (CT) is more sensitive than ultrasound in identifying gallbladder neoplasm and the management of benign lesions depends on size and the presence or absence of symptoms. The risk of malignant transformation of polypoid lesions increases when the lesion is greater than 1 cm. The recommendations for lesions less than 1 cm include follow-up and reevaluation of the lesion with repeated imaging studies. Patients with symptomatic lesions, i.e. biliary colic or acute cholecystitis, are eligible for cholecystectomy. The indications for cholecystectomy in asymptomatic cases include coexistent biliary disease, such as cholelithiasis, a polyp greater than 1 cm in patients older than 50 years with a wide-based lesion and a single polyp lesion or an enlarging lesion. Laparoscopic cholecystectomy is usually the surgical procedure of choice in most cases.

Prognosis of benign lesions of the gallbladder is obviously excellent provided that prompt surgical treatment is administered.

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Diagnosis: Polypoid lesion of the gallbladder.