Pleural effusion in acute pancreatitis, not always related

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To the editor,

A 47 year-old male patient admitted to our hospital with chief complaints of severe epigastric pain, intermittent nausea and vomiting ongoing for 2 days. The patient's heart rate was 84/minute, body temperature was 37.4°C and skin and scleras were icteric at the initial presentation. Respiratory sounds could not be hearded at the basal levels of the right lung. Laboratory tests revealed as following; hemoglobin 10.6 g/dL (13.3-17.2), C-reactive protein 96.4 mg/L (0-5), amylase 1300 u/l (28-100), lipase 318 u/l (13–60), aspartate aminotransferase 104 u/l (< 40), alanine aminotransferase 189 u/l (< 41), lactate dehydrogenase 450 u/l (240-480), gamma-glutamil transferase 283 u/l (8-61), alkaline phosphatase 376 u/l (40-130), direct bilirubin 4.36 mg/dl (≤ 0.30). Chest X-ray examination revealed pleural effusion on the right side, coming up to the level of the fifth costa. (Fig. 1a). According to the abdominal computed tomography; intrahepatic bile ducts and the common bile duct (CBD) were dilated, gall bladder was hydropic as the thickest part of it was measured as 12 mm. Diffuse enlargement of the pancreas including contour irreegularities and inhomogeneous attenuation was seen. Endoscopic retrograde cholangiogram was performed in the presumed setting of acute biliary pancreatitis with ongoing biliary obstruction. Biliary sludge was detected in CBD and extracted with a balloon after sphincterotomy.

Dyspnea of the patient increased distinctly in the following days. Therefore, we performed thorasentesis for the relief of the symptoms. Cytologic examination was requested due to our routine practice as well as the microbiological and biochemical examination of the pleural fluid. The cytology revealed metastatic adenocancer with signet-ring cells (Fig. 1b). Subsequently endoscopy of the upper gastrointestinal tract was performed for the exploration of the primary lesion and as a result, an ulcerated and infiltrated lesion, approximately 4-5 cm in size was seen on the small curvatura of the stomach. Multiple biopsies were taken and the pathological examination was consistent with signet-ring cell adenocarcinoma (Fig. 1c).

Pleural effusion is one of the less common signs in acute pancreatitis. In addition, pleural effusion is one of the components of BISAP scoring system for acute pancreatitis and contributes to poor prognosis (1). Initial manifestation of gastric cancer with malign pleural effusion and dyspnea is very rare. Roussos and et al. have previously reported four cases with gastric adenocarcinoma which were initially presented with malign pleural effusion and two of the cases were

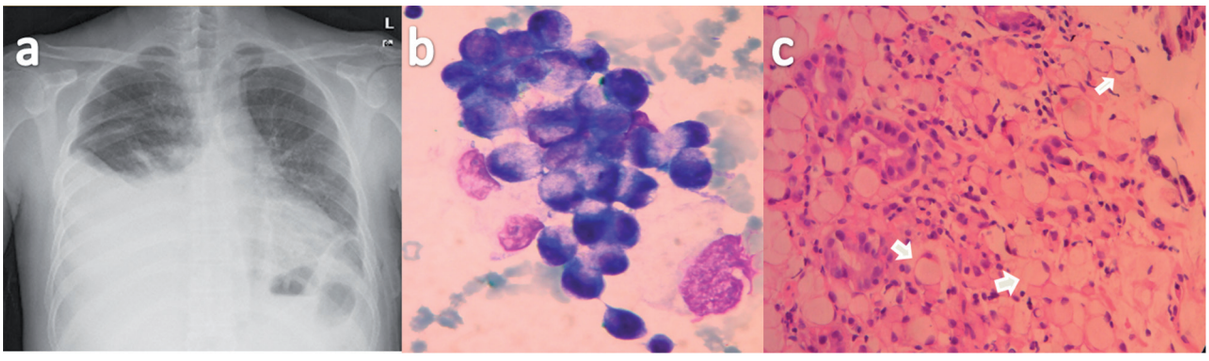

Figure 1. — a. on chest X-ray examination, right pleural effusion was seen ; b. the aspiration of plevral fluid showing a large cluster of signet ring cells (MGG stain) ; c. histologic appearence of signet ring cell carcinoma. Malignant cells with clear cytoplasm are arranged among nonneoplastic gastric glands (arrows) (HE stain)

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already metastatic to liver (2). What makes our case different from the previously reported ones, is the initial manifestation of the disease at first admission. Only symptoms related with acute biliary pancreatitis were present. Underlying gastric malignity was masked with the symptoms of acute biliary pancreatitis and it was diagnosed incidentally as a result of cytological examination of pleural effusion which can be seen as a component of both clinical conditions.

In conclusion, we would like to emphasize the need for sampling and the cytological examination of the pleural fluid in situations where not all elements point towards one diagnosis, such as the present report.

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