

Grey Turner's sign in acute necrotizing pancreatitis

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A 32-year-old male presented to Emergency Department with history of severe epigastric pain radiating to the back, recurrent vomiting of 3 days duration, and shortness of breath. The patient was managed initially elsewhere with intravenous fluids and broad spectrum antibiotics. On examination patient had tachycardia (pulse rate 150 bpm), tachypnea (respiratory rate 38/min) and a blood pressure of 130/80 mmHg. Examination of the abdomen revealed generalized distention of the abdomen with erythema in the left flank (Fig. 1) suggestive of Grey Turner's sign. The area was tender to touch and had raised local temperature. Bowel sounds were absent. Serum amylase and lipase were elevated and contrast-enhanced computed tomography of the abdomen performed on day 5 revealed non enhancing pancreas (>50% necrosis, computed tomography severity index 10/10) and extra-pancreatic necrosis tracking down both the pararenal spaces into the pelvis (Fig. 2 A,B). The site where the Grey Turner's sign was seen exactly correlated with the site of extrapancreatic necrosis on imaging. The patient was shifted to the Intensive Care Unit, started on intravenous fluids, antibiotics, analgesics and put on mechanical ventilation due to severe hypoxemia. Despite 48 h of intensive therapy, the patient continued to worsen with elevated total leukocyte count and high-grade fever. Therefore, a pigtail was inserted into the lesser sac collection which drained hemorrhagic fluid (Fig. 3). Despite all efforts, the patient went into refractory shock and could not be revived.

Grey Turner's sign was described by a British surgeon for the first time in 1920 in a patient of acute pancreatitis [1]. This sign is nonspecific for acute pancreatitis and has been described in retroperitoneal hemorrhage secondary to hepatocellular carcinoma, trauma, perirenal hematoma, and portal hypertension [2,3]. The Grey-Turner's sign is produced by spread of the pancreatic inflammation from the anterior pararenal space between the posterior renal fascia and subsequently to the lateral edge of the quadratus lumborum muscle [4]. The skin signs of acute pancreatitis are rare, but, if present, they confer a poor prognosis, as in our case [5].



Figure 1 Grey Turner's sign



Figure 2 Contrast-enhanced computed tomography (CECT) of the abdomen: (A) Extrapancreatic necrosis along the left posterior pararenal space. (B) Non enhancing pancreas suggestive of pancreatic necrosis



Figure 3 Hemorrhagic fluid retrieved from the percutaneous drain inserted in lesser sac

References

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