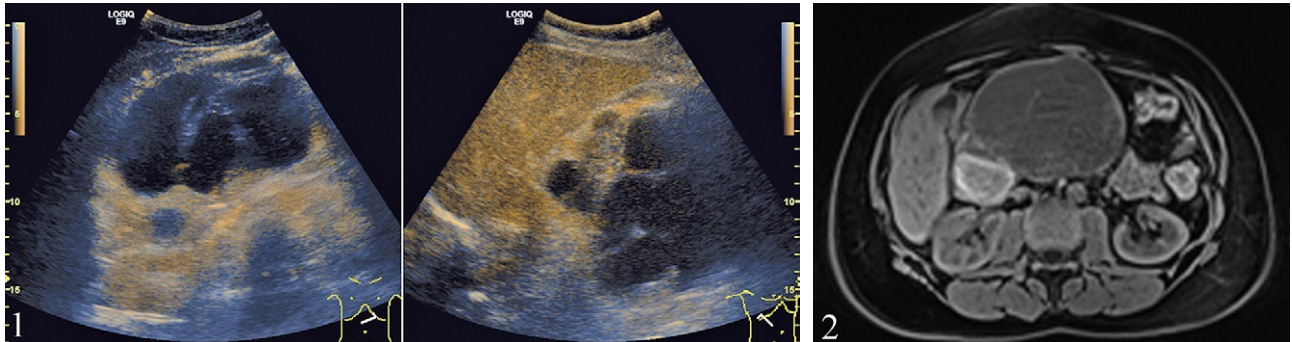


Cystic Pancreatic Lesion Discovered in the Setting of Abdominal Trauma: a Diagnostic Challenge

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A 29-year-old female patient, in good overall health, was referred for epigastric pain radiating to the lower back, not responsive to minor analgesic drugs. Her medical history included a car accident with abdominal trauma two years before the actual presentation. The initial abdominal ultrasonography and computed tomography identified a pancreatic, partially fluid mass, with a 4.5 cm diameter, which was interpreted as a pancreatic hematoma. In our department, abdominal ultrasonography revealed a multiseptated cystic pancreatic mass, with increased size, measuring 11/11/8 cm. The contrast enhanced ultrasound (CEUS) identified the presence of small vessels in the cystic walls and septa; the contrast agent was visualized in both the arterial and venous phase (Fig. 1). The CEUS clearly delineated the pancreatic lesion from the surrounding tissues. The pancreatic MRI confirmed the aspect described on ultrasound and additionally described a hemorrhagic component of the lesion on non-enhanced T1-weighted images. Hemorrhage was present in the dependent part of the lesion and it appeared as an intense hypersignal on the MRI non-enhanced examination (Fig. 2).

The final diagnosis based on clinical history, age, gender and the imaging aspect was that of a cystic tumor of the pancreas, with a high suspicion of a solid pseudo-papillary neoplasia (SPN). Histology of the lesion confirmed this diagnosis, showing poorly cohesive monomorphic epithelial cells, forming solid and pseudo-papillary structures with hemorrhagic and necrotic areas.

The SPN is a rare pancreatic tumor. It is more common in young women, but it is more aggressive in older men [1]. Patients are usually asymptomatic. The SPN has a highly suggestive aspect on imaging. The CEUS pattern is an inhomogeneous enhancement of the thickened peripheral capsule, and solid components surrounding cystic and necrotic avascular areas independent of their size [2]. The vessels description in the walls and septa by CEUS in our patient was the main criterion

in differentiating posttraumatic pancreatic lesions, such as pseudocyst and hematoma, from a SPN. The intralesional hemorrhage was evidenced by the MRI non-enhanced T1 weighted images.

Hemorrhage is a histological characteristic in the development of this particular pancreatic tumor, but might be misinterpreted in the traumatic context. The imaging criteria for the differential diagnosis of mixed solid and cystic lesions must rely on the age and gender of the patient and on the vascular pattern on periphery, septa and solid areas. Similar cases have been reported [3, 4], but our case highlights the importance of CEUS examination for identifying the vascular pattern highly suggestive for SPN [3, 4].

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