

Tumor in the lesser sac

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Clinical case: A 46 year-old patient, with no significant past medical history or family medical history, complaining of mild epigastric discomfort and weight loss during the past year was examined by abdominal ultrasound.

During the US examination a 11/9.5/6.5cm mass was identified anterior to the body and tail of the pancreas, and posterior to the stomach, in the area of the lesser sac (fig. 1). The 3D reconstruction of the tumor establishes its origin in the posterior gastric wall and reveals its internal structure (fig. 2): well-defined, with complex echotexture, heterogeneous, predominantly parenchymal, but also with a 3/3 cm fluid area (probably necrosis). The Doppler examination revealed peripheral and central vascularization. Relatively high maximum flow velocity (20-25 cm/s) and impedance indices (RI=0.8-0.9, PI=2-2.4) were recorded (fig. 3). The abdominal ultrasound also revealed mild splenomegaly and a small accessory spleen.

Questions:

1. What is the most likely diagnosis?
2. What kind of development can this kind of tumors have in relation with the lumen of the digestive tract?

3. Which segment of the digestive tract is most often involved by this pathology?
4. What ultrasound aspects can these types of tumor have? Given the sonographic aspect of our case, is the tumor more likely benign or malignant?



Fig 1. Well-defined mass, with complex echotexture, heterogeneous, and predominantly parenchymal, but also with an internal fluid necrotic area

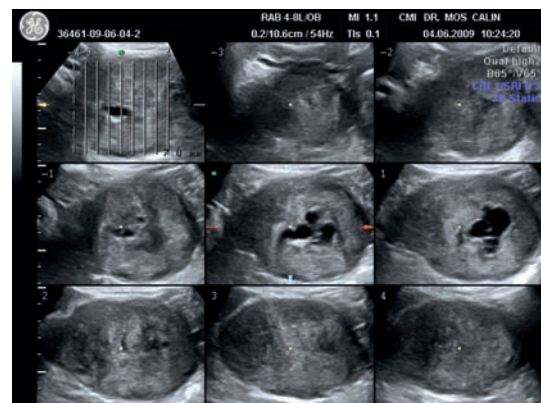


Fig 2. The echotomographic sections at the level of the mass help us gain a better understanding of the internal architecture of the tumor and clarify the affiliation of this tumor to the posterior gastric wall.

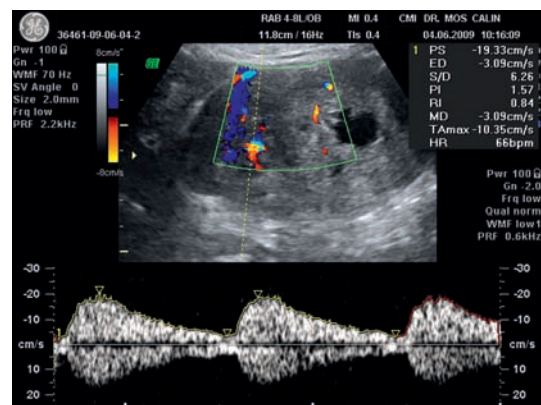


Fig 3. Color and pulsed Doppler ultrasound reveal the characteristics of tumor vascularization.

Answer Quiz vol 12 no. 3

Adenocarcinoma of the gallbladder

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Summary of the clinical observation

The clinical observation regarded an elderly patient with right upper quadrant pain and weight loss, for whom the imaging investigations, specifically the abdominal ultrasound and the CT, revealed the presence of gallbladder stones and a vascularized parenchymal mass, strictly located inside the gallbladder.

The answers to the questions specified in the last issue of the journal are as follows:

1. What is your diagnosis?

The complete diagnosis is that of biliary lithiasis and tumoral mass of the gallbladder, possibly adenocarcinoma.

2. Which therapeutic approach would you propose?

The proper therapeutic approach is cholecystectomy, especially since the gallbladder tumor is strictly limited to the gallbladder, with no signs of invasion, hepatic or lymph node metastases. The age and the associated pathologies are not contraindications to the surgical intervention.

Consequently, the patient went through a cholecystectomy, without any complications (dr Calin Ionescu, 1st Surgical Clinic, Cluj). The diagnosis was confirmed by the surgical intervention and the pathology report of the resection specimen.

Gross pathology report: 6,5/0,3 cm gallbladder, presenting at the level of the fundus a vegetating brownish tumoral mass, measuring 4,5/4,5/2 cm, with a narrow base at the level of the mucosa, soft and friable. On the cross section, the color is grayish-white. The tumor partially invades the wall of the gallbladder and it does not reach the gallbladder neck.

Microscopy: Tubular intestinal type, well-differentiated (G1) gallbladder adenocarcinoma, pT1bNxMx, originating in an adenomatous lesion. Absence of vascular or lymphatic tumor emboli.

3. What clinical and imaging particularities of this case can you identify and what are the unusual aspects of this case?

The particular aspects of this case are the relatively discrete clinical manifestation of this serious and, often, very aggressive pathology (gallbladder adenocarcinoma). From the imaging point of view, it is unusual for such a mass to fill almost the entire lumen of the gallbladder and present no exterior invasion (fig 1-3).

The explanation probably lies in the growth of this tumor from a benign adenomatous lesion. It is very likely that the adenoma grew to fill the entire gallbladder and the malignant transformation followed. This hypothesis is sustained by the histopathology report of the resection specimen:

At the level of the gallbladder fundus, the mucosa presents papillary and spongious hyperplasia, extensive areas of intestinal metaplasia and rare areas of pyloric metaplasia, with progression towards the aspect of an intestinal tubular adenoma... The superficial part of the adenoma presents low-grade dysplastic areas, with progressive transformation into a tumoral proliferation with a tubular pattern, containing intestinal-type glands with an irregular contour, lined by an epithelium with reduced atypia and rare typical mitoses. The tumor presents extension within the wall both along the Rokitsansky-Aschoff sinuses and as separate cellular islands, without crossing the muscularis propria. There is no visible perineural invasion, nor vascular or lymphatic tumor emboli.