Case (623) Multiple visceral infarctions and infiltrative mass in

hepatoduodenal area and gallbladder fossa: diagnostic

challenge

Authors M. Castaño Reyero, A. Merina, D. Paredes Ruiz, N. Torres, D.

Plata, A. Marín.

Centre Hospital Universitario Doce De 12 Octubre.

## CASE PRESENTATION

An 84-year-old woman is admitted to the emergency department with a stroke and a 1week history of fever. She had a history of cholelithiasis. During the stay, she developed right-sided abdominal pain.

Physical examination demonstrated an uncertain palpable mass; therefore a contrastenhanced computed tomography (CT) is performed. It showed a large, heterogeneous, illdefined mass with air inside, which invaded the gastric antrum, 1st and 2nd duodenal portion and the gallbladder fossa. The gallbladder showed irregular and thickened walls.

There was not pancreatic involvement, biliary tract dilatation or intestinal obstruction. There were also infarctions in the spleen and kidneys, and large lymph nodes in the hepatic hilium The patient developed sudden deterioration of the level of consciousness.

Therefore a cranial CT was performed, where multiple subacute brain infarctions were seen in both cerebral hemispheres. The involvement of different vascular territories suggested cardioembolic origin. The patient died and a necropsy was performed

## DISCUSSION

When facing a mass in such location with the involvement of the gallbladder, gallbladder neoplasm should be considered as an option, as such is the most frequent form of presentation (45-60%) of gallbladder carcinoma. As seen in our case, gallbladder carcinoma usually presents as a heterogeneous mass, often with large lymph nodes and signs of local invasion.

Biliary obstruction is also frequently found. Such tumors are often diagnosed in advanced stages. Gallbladder carcinoma is more frequent in women of advanced age and around 80-90% of cases have a history of cholelithiasis.

Other possibilities such as a gastrointestinal or primary peritoneal neoplasm are less probable given the characteristics of the mass of our case and the prevalence of suchtumors.

Gastrointestinal neoplasm usually are more homogeneous and with less contrast enhancement and they produce gastrointestinal obstruction when the tumor is large. Gastrointestinal stromal tumors (GIST) are well-defined masses (only 17% are illdefined) and do not associate lymph node enlargement (only 5%).

Results of the necropsy was:

- Mucinous adenocarcinoma of biliary or pancreatic origin. Given that the mass had no contact with the pancreas the biliary origin was assumed
- Marantic endocarditis (nonbacterial thrombotic endocarditis) as a cause of visceral infarctions.

## CONCLUSION

Occasionally, in the emergency department we find advanced neoplasm not diagnosed previously

The presentation, characteristics of the image and background help us to establish the differential diagnosis.

Gallbladder carcinoma frecuently presents as an infiltrative neoplasm with large contact or destruction of the gallbladder and biliary tract, and local lymph nodes.



Figures A and B: Heterogeneous mass that includes antrum, 1st-2nd duodenal portion and partially the gallbladder fossa (Arrows). Air inside the gallbladder and a mass (arrow head). Poorly-defined margins with signs of invation of adjacent fat (lightning)

Figure A: Large lymph nodes (Curved arrow)

Figure C: Renal cortical hypodense areas sggesting infarcts (Arrows). Mass that includes up to the second duodenal portion with infiltrative margins (lightning)

Figure D: Corticosubcortical hypodensity with gyral effacement of right parietal lobe, and left frontoparietal lobe compatible with subacute cerebral infarcts (arrow)

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