

The morphological and functional diagnosis of a rare entity: lipomatous pseudohypertrophy of the pancreas

Key words: Magnetic resonance. Cholangiopancreatic. Secretin. Pancreas. Lipomatous pseudohypertrophy.

Dear Editor,

Lipomatous pseudohypertrophy of the pancreas (PLP) is a rare entity with an uncertain etiology that occurs due to a focal or diffuse replacement of the pancreatic parenchyma by mature adipose tissue (1,2).

The clinical manifestation is non-specific and abdominal pain and/or steatorrhea are the most frequent symptoms. Nevertheless, there are a few characteristics that lead to a diagnosis. These include: a) an increase in size and weight of the pancreas due to replacement by adipose tissue; b) a practically complete absence of the exocrine function of the pancreas; and 3) the preservation of the ductal system and the islets of Langerhans. These findings can be confirmed by imaging techniques (1,2).

Case report

We present the case of a 72-year-old woman with a colicky abdominal pain in the right hypochondria of a duration of several months and a weight loss of 10 kg. Echoendoscopy identified a heterogeneous pancreatic parenchyma with areas of a lobular pattern and hyperechoic stripes and a normal Wirsung. The abdominal-pelvic computed tomography (CT) showed an increase in the size of the pancreas with an almost complete replacement of the parenchyma by adipose tissue (Fig. 1A). After the administration of secretin, a cholangiopancreatic MRI showed a fatty infiltration and a normal pancreatic duct with an adequate distension. The secretin confirmed a correct distension of the Wirsung duct, which had returned to its normal caliber, and a reduced exocrine function as there was only a small amount of duodenal filling (Fig. 1B-D).

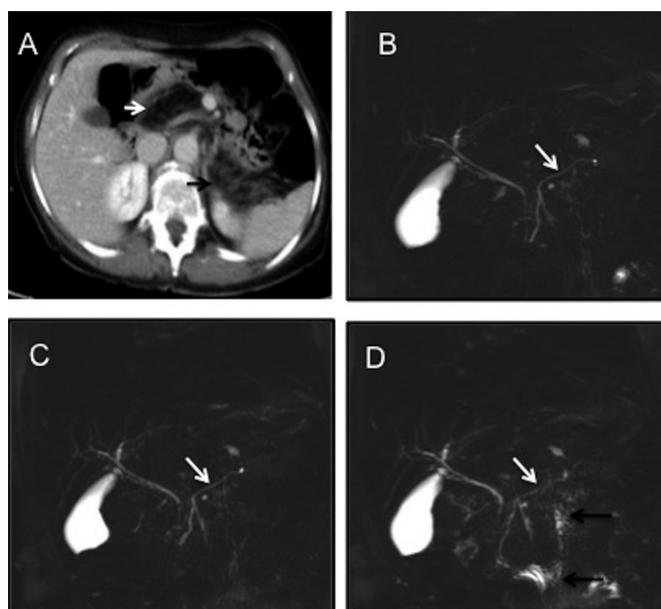


Fig. 1. A. CT. Axial MIP reconstruction: fatty replacement of the pancreatic parenchyma (white arrow: pancreas head-neck; black arrow: pancreas tail). B-D. Cholangiopancreatic MR coronal images. B. Basal image that identifies a normal pancreatic conduct (white arrow). C. One minute after secretin injection, the pancreatic conduct (white arrow) is at its widest point of dilatation. D. Late image (ten minutes) shows a reduction in the pancreatic duct caliber (white arrow) in relation to C and a small amount of signal intensity in the small bowel due to a poor exocrine function (black arrows).

Discussion

Among the available imaging techniques, a cholangiopancreatic MRI with secretin is the technique of choice due to its ability to provide morphological information and also functional data of the ductal system. This technique is also able to assess the exocrine function in a semi-quantitative manner (3-5).

A few differential diagnoses should be considered, as this condition can be confused with a lipoma or liposarcoma when presenting in a focal manner. However, when there is a diffuse involvement of the pancreas, it should be dif-

ferentiated from chronic pancreatitis, cystic fibrosis and pancreatic lipomatosis. The possibility of diagnosing PLP by a non-invasive imaging technique, allows a conservative management of this condition.

*Sandra Baleato-González, Cecilia Vieira-Leite and Roberto García-Figueiras
Department of Radiology. Hospital Clínico Santiago de Compostela.
Santiago de Compostela, A Coruña. Spain*

DOI: 10.17235/reed.2018.5367/2017

References

1. Altinel D, Basturk O, Sarmiento JM, et al. Lipomatous pseudohypertrophy of the pancreas: A clinicopathologically distinct entity. *Pancreas* 2010;39:392-7. DOI: 10.1097/MPA.0b013e3181bd2923
2. Beresford OD, Owen TK. Lipomatous pseudohypertrophy of the pancreas. *J Clin Path* 1957;10:63-6. DOI: 10.1136/jcp.10.1.63
3. Sandrasegaran K, Lin C, Akisik FM, et al. State-of-the-art pancreatic MRI. *AJR* 2010;195:42-53. DOI: 10.2214/AJR.10.4421
4. Akisik MF, Sandrasegaran K, Aisen AA, et al. Dynamic secretin-enhanced MR cholangiopancreatography. *RadioGraphics* 2006;26:665-77. DOI: 10.1148/rg.263055077
5. Sanyal R, Stevens T, Novak E, et al. Secretin-enhanced MRCP: Review of technique and application with proposal for quantification of exocrine function. *AJR* 2012;198:124-32. DOI: 10.2214/AJR.10.5713