CASE NOTE

Intrapancreatic accessory spleen mimicking a pancreatic endocrine tumour

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We report a case of intrapancreatic accessory spleen that was initially misdiagnosed as an endocrine tumour. Although rare, this anomaly should be included in the differential diagnosis of caudal pancreatic masses to avoid unnecessary surgeries.

Case report

A 39-year-old man presented with a nodular lesion in the tail of his pancreas that had been found incidentally on an abdominal ultrasound. The ultrasound had been ordered as part of a comprehensive work-up for indolent abdominal pain of several weeks' duration. The patient's medical history was unremarkable; notably, there were no symptoms that would suggest hypersecretion of pancreatic hormones.

We confirmed the presence of a nodular lesion by computed tomography (CT). The lesion was difficult to image without contrast, but it presented as a slight increased density compared with the pancreas on images with contrast (Fig. 1). The assessment was completed by a magnetic resonance imaging (MRI) scan that showed an ovoid lesion that was homogeneous, well demarcated and hypervascular with a size of 1.7 × 1.6 cm (Fig. 2).

Because we suspected a nonfunctioning but potentially cancerous

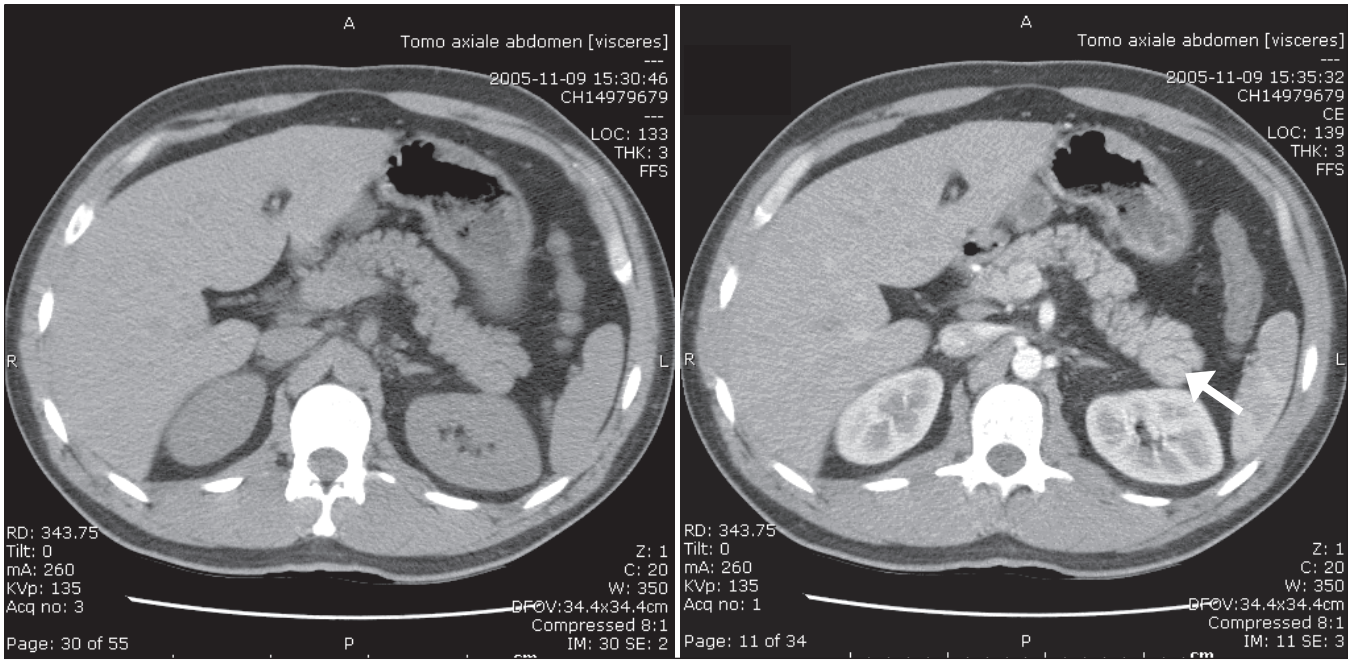

Fig. 1. Computed tomography scans of the patient's abdomen without (**left**) and with (**right**) intravenous contrast in the arterial phase showing an ovoid lesion that appears more dense than the adjacent pancreatic tissue (white arrow).

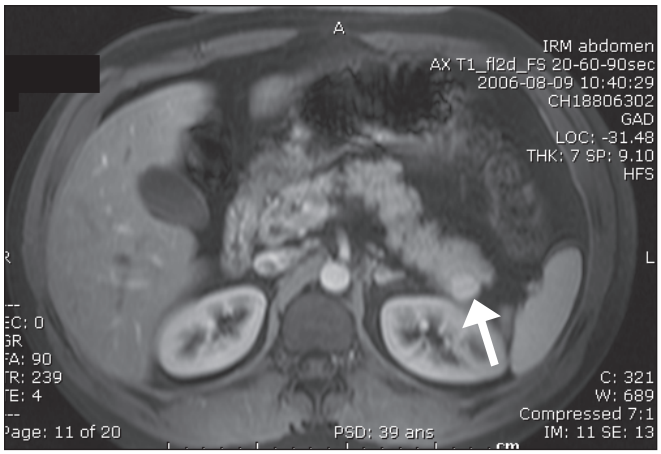

Fig. 2. A T_1-enhanced magnetic resonance imaging scan taken after the administration of intravenous gadolinium contrast showing increased density of the lesion in the arterial phase (white arrow).

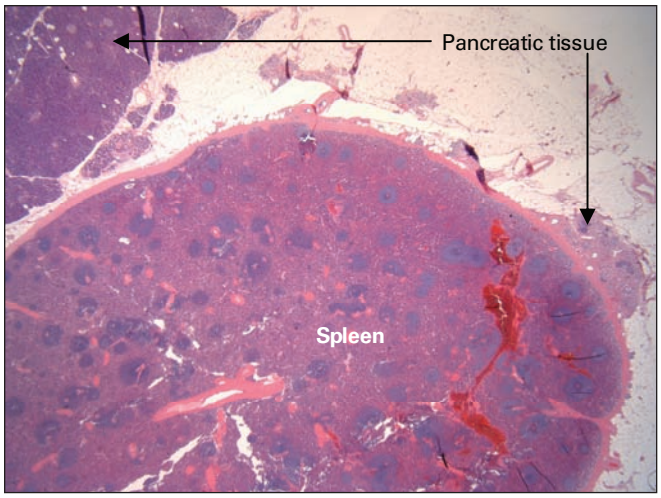

Fig. 3. Histologic staining of the mass showing a spleen surrounded by pancreatic tissue (hematoxylin–eosin stain, original magnification × 24).

endocrine tumour, we conducted a left-sided splenopancreatectomy. The patient's postoperative recovery was uneventful.

Pathologic examination of the mass revealed that it was a 1.7-cm accessory spleen with a heterotopic location in pancreatic tissue (Fig. 3).

Discussion

There are only a few reported cases of intrapancreatic accessory spleens in the literature. Most, as in our patient's case, were identified only after surgical resection that was conducted because of suspicion of an endocrine tumour.[1] Nevertheless, this anomaly is perhaps not as rare as previously thought. In fact, in 3000 autopsies reported by Halpert and colleagues,[2] 364 accessory spleens were found and, in 17% of cases, it was located in the tail of the pancreas. As accessory spleen is a benign lesion, and it does not usually require treatment unless it is also associated with a blood disease such as idiopathic thrombocytopenic purpura. It is therefore preferable to arrive at a diagnosis using the least invasive means possible. Because 30%–40% of endocrine tumours of the pancreas are nonfunctioning, normal hormone levels do not automatically point toward the diagnosis of a benign lesion. An intrapancreatic spleen can mimic a hypervascular endocrine tumour on contrast-enhanced CT and MRI scans, as in our patient. The usefulness of octreotide scintigraphy is limited in such cases because splenic tissue also expresses somatostatin receptors.[3]

When in doubt, the 2 approaches described by Ota and colleagues[4,5] merit consideration. The first approach is single photon emission CT with technetium 99–labelled red blood cells.[4] The second approach is contrast-enhanced ultrasonography using microgranules (Levovist; Schering AG). In the late phase, the granules are retained almost exclusively by the hepatosplenic parenchyma, permitting the clinician to distinguish between an accessory spleen and a pancreatic tumour.[5]

Given the frequent advances in medical imaging and the increased usage of these modalities, surgeons will encounter more masses in the tail of the pancreas. In such cases, surgeons should include accessory spleen in their differential diagnosis to avoid unnecessary surgery.

Competing interests: None declared.

References

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