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Case Report

A rare tumour of pancreas in an incidentally discovered pancreatic lipoma

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Introduction

Mesenchymal tumours of pancreas are rare tumours which constitute less than 1–2% of all pancreatic tumours.¹ Various mesenchymal tumours have been reported in literature including lipoma, teratoma, schwannoma, neurofibroma, lymphoma and sarcoma. Pancreas is an uncommon location for a lipoma. These tumours are usually detected as incidental findings on imaging studies. Here we report a case of pancreatic lipoma in a 39-year-old female patient which was incidentally detected on ultrasound and was confirmed on CT imaging.

Case report

A 39-year-old female patient presented to the surgical outpatient department with complaints of epigastric pain since 3 months. She had no other complaints. On examination, her pulse and blood pressure were within normal limits. There was no pallor or icterus. On abdominal examination, minimal tenderness was noted in epigastric region.

Investigations revealed normal haematological and biochemical parameters including serum amylase and serum lipase.

On ultrasonography (Siemens Acuson X300, 5 Mhz curvilinear transducer), there was a well-defined hyperechoic lesion measuring $3.1 \times 2.6 \times 1.8$ cm in size within the body of the pancreas (Fig 1). There was no colour uptake on Doppler. A provisional diagnosis of lipoma was made and a subsequent CT (Siemens Somatom Emotion, 6 slice MDCT) scan showed a homogeneous, well-defined, fat-density (HU-113) lesion in the body of pancreas with no infiltrative features and no enhancement following contrast injection, confirming the diagnosis of lipoma (Figs. 2 and 3).

No biopsy was performed in view of the typical imaging features. She was then treated conservatively with analgesics and proton pump inhibitors and her pain subsided in two days. She was then discharged and advised follow-up.

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Fig. 1 – USG (5 Mhz curvilinear transducer) image showing well-defined, homogeneous hyperechoic lesion (arrow) within the body of pancreas.

Discussion

Lipomas are benign tumours of mesenchymal origin.¹ The pancreas is an uncommon location for lipomas and pancreatic lipomas are usually detected as incidental findings on CT and MR studies.² These lipomas have characteristic imaging features which allow a correct diagnosis to be made without histopathological confirmation.³

On ultrasound imaging, these tumours are characteristically well-defined, homogeneous and usually hyperechoic.⁴ They do not show colour uptake on Doppler imaging. On CT scans, they are homogeneous, well-defined

Fig. 2 – Contrast enhanced CT (6 slice MDCT) axial image showing well-defined, fat-density, non-enhancing lesion (arrow) within the body of pancreas.

Fig. 3 – Contrast enhanced CT (6 slice MDCT) coronal reformatted image showing well-defined, fat-density, non-enhancing lesion (arrow) within the body of pancreas.

and show a characteristic fat-density with no infiltration of adjacent structures.⁵ Thin septations may be seen within the mass corresponding to fibrolobular septae inside the mass. No enhancement is seen following administration of intravenous contrast agents.⁵ On MR imaging, pancreatic lipomas are isointense to the intra-abdominal fat which is hyperintense on both T1 and T2 weighted sequences and does not show any enhancement following administration of gadolinium.⁴

Although these tumours are asymptomatic, complications such as obstruction of common bile duct or pancreatic duct and compression of adjacent vessels can occur. Differential diagnosis of these tumours includes other fat containing lesions like fatty infiltration of pancreas, teratoma and liposarcoma.⁶ Fatty infiltration of pancreas is an infiltrative process while a pancreatic lipoma is well-defined and non-infiltrative. Pancreatic dermoids usually show cystic components and/or calcifications, sometimes even fat-fluid levels, in addition to the fatty component⁷ while immature teratomas usually are infiltrative and show solid enhancing component. Liposarcomas usually have a heterogeneous density and irregular infiltrative margins, are usually large in size and usually enlarge on follow-up studies. Rarely, a low grade lipogenic liposarcoma may mimic a benign lipoma on imaging. However, most

investigators still believe that histopathological confirmation is not essential for a diagnosis in the presence of typical imaging features of a pancreatic lipoma.^{2–5} In cases with atypical imaging features, an endoscopic/percutaneous biopsy may be considered.

In our case, the diagnosis was made on ultrasound and confirmed on CT imaging. A biopsy was not performed as the tumour showed typical imaging features.

Conclusion

Pancreatic lipomas are rare benign tumours. They have characteristic imaging features which allow a correct diagnosis without the need of biopsy.

Conflicts of interest

All authors have none to declare.

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