

Extramedullary plasmacytoma of the pancreas diagnosed by EUS-guided fine-needle biopsy (with videos)

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A 52-year-old male patient was admitted to the hospital due to epigastric discomfort and limb numbness for 1 month. Routine blood test, liver enzymes, and kidney function were normal, CA199 was within the normal limits, and serum globulin was elevated (47.2 g/L). Computed tomography (CT) scan of the abdomen revealed a homogeneous solid mass in the head of the pancreas with multiple osseous destruction [Figure 1]. Fluorodeoxyglucose–positron-emission tomography

examination confirmed the pancreatic mass with increased glucose metabolism, which was considered to be malignant. EUS showed a hypoechoic, well-demarcated, about 2.4 cm diameter mass in the head of the pancreas, with absence of pancreatic duct and common bile duct dilation [Figure 2 and Video 1]. EUS elastography of the mass was predominantly blue pattern with a few green and red areas [Figure 3].

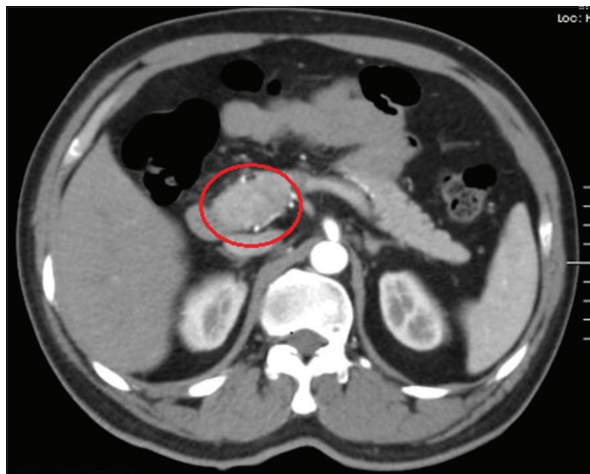


Figure 1. Abdomen CT scan revealed a homogeneous solid mass in the head of the pancreas

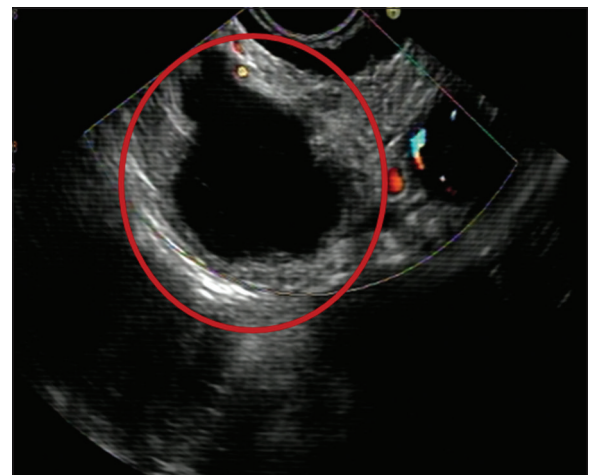


Figure 2. EUS showed a hypoechoic, well-demarcated mass in the head of the pancreas

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EUS-fine-needle biopsy (FNB) was performed with a 22-gauge procore needle [Figure 4 and Video 2], with a total of three passes. The texture of the mass was felt to be not hard, histopathology revealed plasma cell mass, and the cells were strongly immunoreactive for CD138 and CD38 [Figure 5]. Bone marrow biopsy was normocellularity, but serum protein electrophoresis and urine Bence–Jones protein electrophoresis meet the diagnostic criteria for multiple myeloma (MM), so this case was diagnosed as MM with extramedullary plasmacytoma of the pancreas.

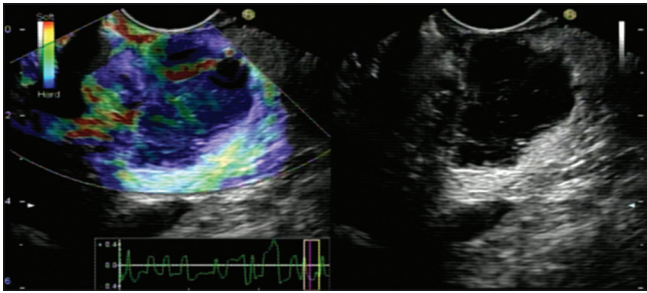


Figure 3. EUS elastography was predominantly blue pattern with a few green and red areas

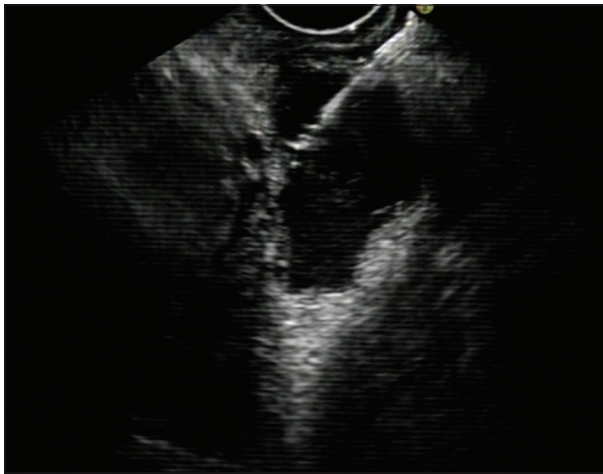


Figure 4. EUS-FNB was performed with a 22-gauge procore needle

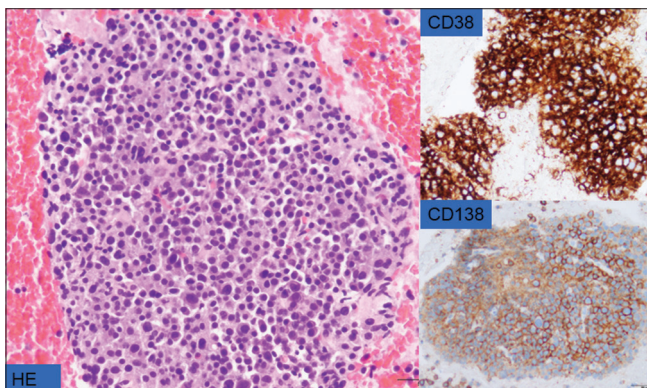


Figure 5. Histopathology revealed plasma cell mass, and positive for CD138 and CD38

Extramedullary plasmacytoma is rare, occurring with the rate of no more than 5% of plasmacytoma, pancreas infiltrated by plasmacytes is even rare.^[1] Pancreatic plasmacytoma usually appears iso- or hypodense on CT images, about 85% occurred in the head of the pancreas, caused abdominal pain and jaundice, and it was easily misdiagnosed as pancreatic cancer^[2,3] Since plasmacytoma is sensitive to radiotherapy and chemotherapy, so surgery is not a priority choice,^[2] ERCP can be used to solve the obstructive jaundice.^[4] It is the first time EUS elastography performance of pancreatic plasmacytoma has been described, it is slightly different from the presence of most pancreatic malignant tumors which is nonuniform blue and so different from uniform blue pattern of malignant pancreatic neuroendocrine.^[5] It is meaningful for diagnosis by immunohistochemistry of positive for CD38 and CD138 and negative for CD79a. In conclusion, for patients with pancreatic mass, osseous destruction, and elevated serum globulin, plasmacytoma needs to be considered. EUS-FNB is worthy to recommend because it can get enough tissues for immunohistochemistry.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient has given his consent for his images and other clinical information to be reported in the journal. The patient understands that his name and initials will not be published and due efforts will be made to conceal his identity, but anonymity cannot be guaranteed.

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Nil.

Conflicts of interest

There are no conflicts of interest.

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