Revista Española de Enfermedades Digestivas
The Spanish Journal of Gastroenterology

Title:
Extramedullary plasmacytoma of the pancreas diagnosed by endoscopic ultrasonography-guided fine needle biopsy

Authors:
Andrea Isabel Montenegro Almeida, Katia Flores Aparco , Maricel Subirá Caselles , Inessa Koptseva, Napoleón de la Ossa , José Walter Huamán Ríos

DOI: 10.17235/reed.2024.10879/2024
Link: PubMed (Epub ahead of print)

Please cite this article as:
Montenegro Almeida Andrea Isabel, Flores Aparco Katia , Subirá Caselles Maricel, Koptseva Inessa, de la Ossa Napoleón , Huamán Ríos José Walter. Extramedullary plasmacytoma of the pancreas diagnosed by endoscopic ultrasonography-guided fine needle biopsy. Rev Esp Enferm Dig 2024. doi: 10.17235/reed.2024.10879/2024.

Revista Española de Enfermedades Digestivas
The Spanish Journal of Gastroenterology

CC 10879

Extramedullary plasmacytoma of the pancreas diagnosed by endoscopic ultrasonography-guided fine needle biopsy

Andrea Isabel Montenegro Almeida[1], Katia Jessica Flores Aparco[2], Maricel Subirá Caselles[2], Inessa Koptseva[3], Napoleón de la Ossa[3], José Walter Huamán Ríos[1]

Departments of [1]Gastroenterology, [2]Hepatology and [3]Pathology. Hospital Universitari General de Catalunya - Grupo Quirónsalud. Sant Cugat del Vallès, Barcelona. Spain

Correspondence: Andrea Isabel Montenegro Almeida
e-mail: andrea.montenegro.a@gmail.com

Authors´ contribution: Investigation: A. I. M. A., K. F. A., M. S. C., I. K., and N. D. L. O.; writing-review and editing: J. W. H. R.

Conflict of interest: the authors declare no conflict of interest.

Artificial intelligence: the authors declare that they did not use artificial intelligence (AI) or any AI-assisted technologies in the elaboration of the article.

Keywords: Pancreas. Plasmacytoma. Endoscopic ultrasonography.

Dear Editor,

Solitary plasmacytomas are rare clonal plasma cell neoplasms without marrow infiltration. There are two types: medullar and extramedullary involvement. These are less frequent, usually located in the head (80 %), and rarely in the gastrointestinal tract (1).

Case report

An extramedullary plasmacytoma (EMP) in the head of the pancreas was identified in a 67-year-old male patient, who had been under follow-up for three years with a trimestral proteinogram, B2-microglobulin and a semestral PET-CT since 2020 for a left side cervical EMP treated with radiotherapy reaching complete response. In 2023, elevation of the IgA Lambda gammopathy (5.7 g/l) and a positive positron emission tomography-computed tomography (PET-CT) with a heterogenous hypermetabolic solid mass (standardized uptake values [SUV] max 5.7) in the head of the pancreas were identified. Magnetic resonance imaging (MRI) indicated a homogeneous solid lesion and biliary and pancreatic ducts were respected.

An endoscopic ultrasound fine needle biopsy (EUS-FNB) was planned and linear EUS (Pentax J-10) revealed a 50 x 45 mm sized, hypoechoic, heterogeneous, well-defined round mass in the pancreatic head with anechoic areas and calcifications. The suspected diagnosis was plasmacytoma, without being able to rule out lymphoma, autoimmune pancreatitis or pancreatic sarcoidosis based on the characteristics. FNB was performed easily, considering the size and location, with a 22-gauge needle (Acquire™ FNB-Needle Boston Scientific) (Fig. 1). There were no complications.

Cytopathology results showed isolated arranged cells, in plates and in small groups, showing round-oval nucleus with slightly granular chromatin and delicate cytoplasm. The cell block showed that the cells formed solid groups with marked nuclear breakage artifact. Immunohistochemical was positive for plasmocytic differentiation markers (CD79a+/CD138+) with monotypic expression of lambda light chains, CD20- (Fig. 2). Adenocarcinoma (CAM 5.2) and neuroendocrine (synaptophysin and chromogranin) markers were negative and Ki67 was 15 %. Bone marrow biopsy showed 5 % of plasma cells, 0.43 % with abnormal phenotype.

The patient was treated with norm-fractioned radiotherapy over the pancreatic tumor; surgery was not required because these cells were radiosensitive (1,2). After three months, the patient responded completely with a normal proteinogram, bone marrow analysis and PET-CT. There was no evidence of recurrence until October 2024.

Discussion

EUS cannot distinguish between pancreatic plasmacytoma and other pancreatic tumors. FNB is required, particularly when plasmacytoma is suspected, and a good cellular aspirate is necessary (3). EUS-FNB was performed, which has an excellent safety profile. The rate of serious complications, such as hemorrhage, perforation and acute pancreatitis is 0.6 % (4,5).

EMP in the head of the pancreas is difficult to diagnose. EUS-FNB performed by experienced hands in conjunction with immunohistochemistry and flow cytometry is a valuable tool.

References

1. Caers J, Paiva B, Zamagni E, et al. Diagnosis, treatment, and response assessment in solitary plasmacytoma: updated recommendations from a European Expert Panel. J Hematol Oncol 2018;11(1):10. DOI: 10.1186/s13045-017-0549-1

2. Tsang RW, Campbell BA, Goda JS, et al. Radiation therapy for solitary plasmacytoma and multiple myeloma: guidelines from the International Lymphoma Radiation Oncology Group. Int J Radiat Oncol Biol Phys 2018;101(4). DOI: 10.1016/j.ijrobp.2018.05.009

3. Sadaf S, Loya A, Akhtar N, et al. Role of endoscopic ultrasound-guided-fine needle aspiration biopsy in the diagnosis of lymphoma of the pancreas: a clinicopathological study of nine cases. Cytopathology 2017;28:536-41. DOI: 10.1111/cyt.12442

4. Eloubeidi MA, Chen VK, Eltoum IA, et al. Endoscopic ultrasound-guided fine needle aspiration biopsy of patients with suspected pancreatic cancer: diagnostic accuracy and acute and 30-day complications. Am J Gastroenterol 2003;98:2663-8.

5. Eloubeidi A, Tamhane A, Varadarajulu S, et al. Frequency of major complications after EUS-guided FNA of solid pancreatic masses: a prospective evaluation. Gastrointest Endosc 2006;63:622-9.

Revista Española
de Enfermedades Digestivas
The Spanish Journal
of Gastroenterology

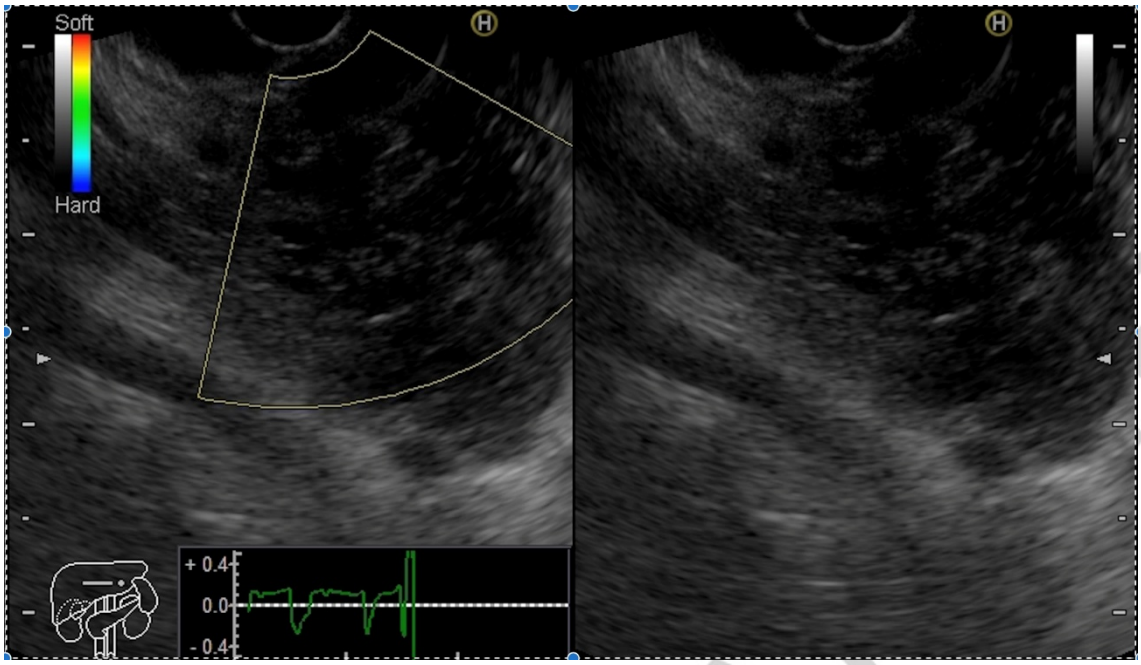

Fig. 1. Linear endoscopic ultrasound (EUS) (Pentax EUS J-10) revealed a 50 x 45 mm sized, hypoechoic, heterogeneous, well-defined round mass in the pancreatic body with anechoic areas and some calcifications.