

Solitary Gastric Extramedullary Plasmacytoma EUS Features: A Case Report

Francisco Vara-Luiz^{a, b} Marta Patita^a Pedro Pinto-Marques^{a, c}
Susana Mão de Ferro^c Raquel Ilgenfritz^d Manuela Bernardo^e

^aGastroenterology Department, Hospital Garcia de Orta, Almada, Portugal; ^bEgas Moniz Center for Interdisciplinary Research (CiiEM), Egas Moniz School of Health and Science, Caparica, Portugal; ^cGastroenterology Department, Hospital CUF Tejo, Lisboa, Portugal; ^dPathology Department, Hospital CUF Descobertas, Lisboa, Portugal; ^eHematology Department, Hospital CUF Tejo, Lisboa, Portugal

Keywords

Gastric plasmacytoma · Endoscopic ultrasound features · Subepithelial lesion

Plasmocitoma gástrico – diagnóstico complementado com ecoendoscopia

Palavras Chave

Plasmocitoma gástrico · Ecoendoscopia · Lesão subepitelial

We present a 71-year-old female with no relevant past medical history. The patient was started on a proton pump inhibitor for dyspepsia, with complete symptomatic improvement. One year later, there was symptom recurrence with weight loss. Upper endoscopy revealed a 10 cm gastric subepithelial lesion, with central erosion (Fig. 1). Pathology evaluation was negative for malignancy. Computed tomography showed an extensive gastric wall lesion, with no adenopathies (Fig. 2). Endoscopic ultrasound (EUS) evaluation revealed an 8 cm subepithelial polycyclic hypoechoic lesion, with transition zone suggestive of the third/fourth layer origin (Fig. 3a). Quantitative elastography evaluation

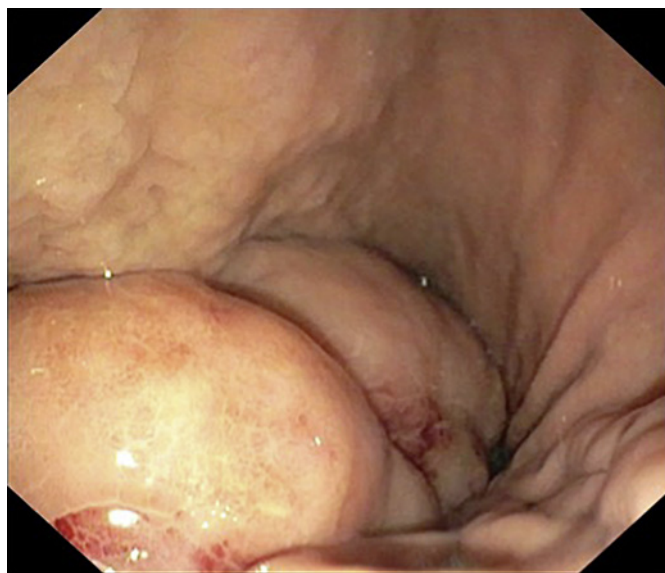


Fig. 1. Upper endoscopy revealing a 10-cm gastric subepithelial lesion, with central erosion.

showed strain histogram 68 (Fig. 3b). The fine needle biopsy using a 22-G Franseen needle revealed clonal proliferation of plasma cells, positive for CD45/CD138 and

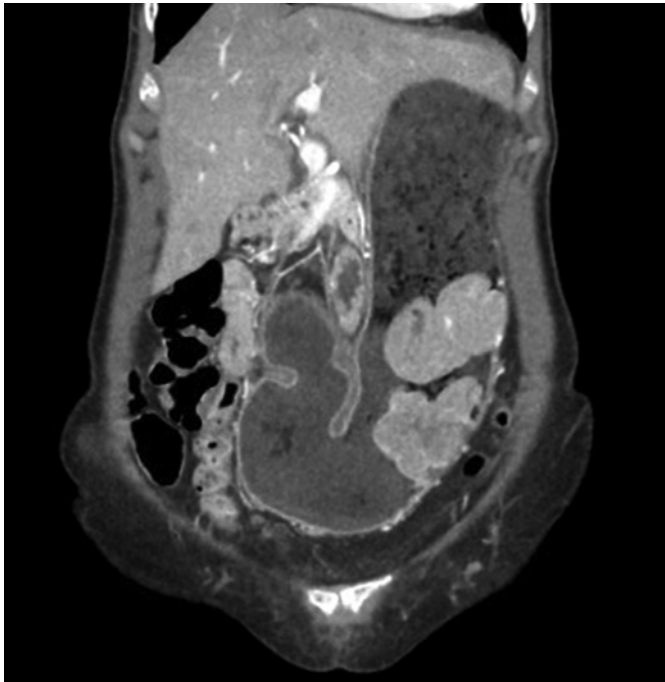


Fig. 2. Computed tomography showing an extensive proliferative gastric wall lesion.

negative for CD3/CD20/CD56 (Fig. 4). There was no anemia, hypercalcemia, or kidney impairment, and no abnormalities were found on bone marrow biopsy and myelogram apart from mildly increased plasma cell proliferation (5–10% of total cells). The positron emission tomography/computed tomography scan showed increased gastric uptake, with a maximum standardized uptake value of 3.3. Treatment consisted of surgical resection and the patient had an uneventful postoperative course. The surgical specimen confirmed the diagnosis.

Solitary extramedullary plasmacytomas are plasma cell tumors arising outside of the bone marrow, accounting for approximately 3% of plasma cell malignancies [1]. Within this category, gastric plasmacytoma accounts for less than 2% of extramedullary plasmacytomas [2]. They frequently present as solitary lesions, although sometimes the endoscopic appearance can only reveal erosion of the mucosa [3]. Symptoms are nonspecific, with epigastric discomfort, abdominal pain, nausea, and vomiting commonly reported. Diagnosis requires biopsy-proven extramedullary tumor with evidence of clonal plasma cells, with flow cytometry immunophenotyping assuming a major role in most hematologic malignancies, along

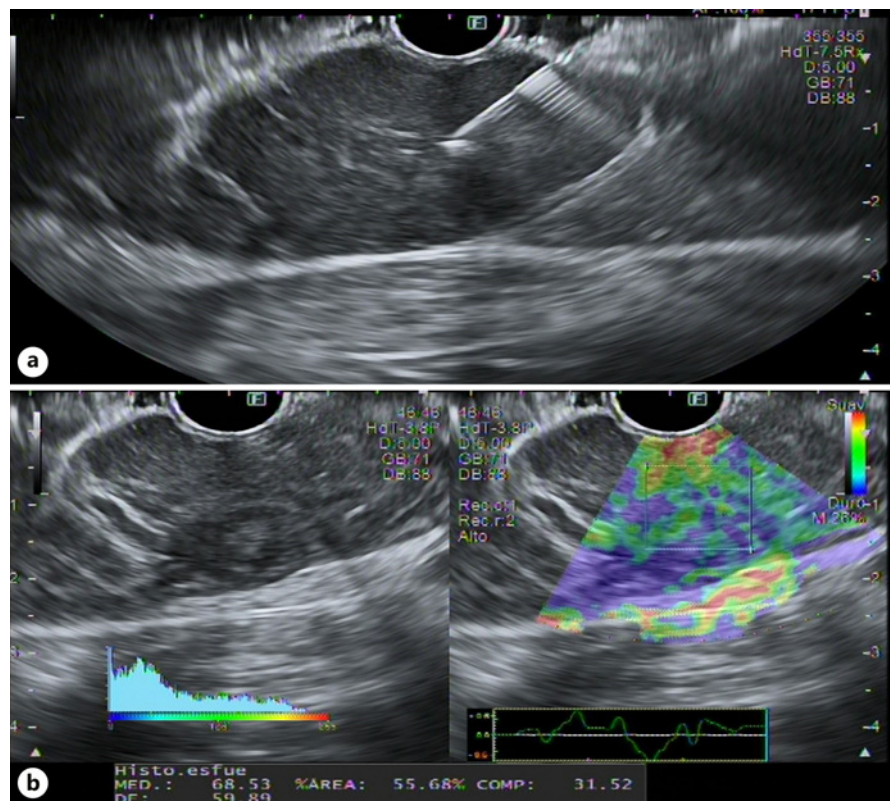


Fig. 3. EUS showing an 8-cm subepithelial polycyclic hypoecoid lesion, with transition zone suggestive of the third/fourth layer origin (a). Quantitative elastography evaluation showed strain histogram 68 (b).

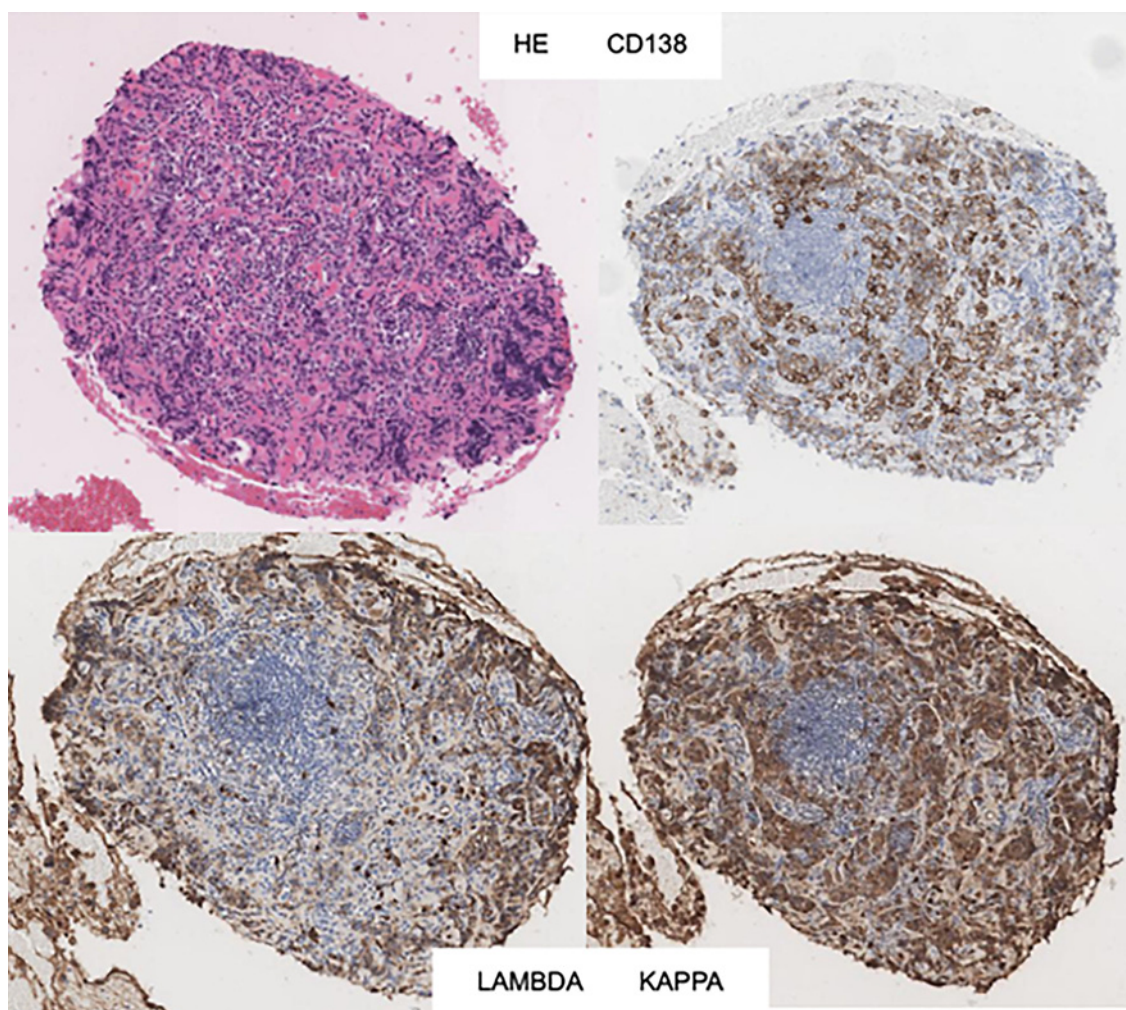


Fig. 4. Histopathology examination showing clonal proliferation of plasma cells, positive for CD45/CD138 and negative for CD3/CD20/CD56.

with normal skeletal and bone marrow survey and the absence of end-organ damage attributable to the underlying plasma cell disorder [4]. The role of EUS is not standardized, and data are scarce regarding EUS features of a gastric plasmacytoma [5]. Surgery is usually the treatment of choice, with a good prognosis [6]. The authors highlight the EUS role as part of the diagnostic workup of gastric plasmacytoma, a rare clinical entity.

Statement of Ethics

Ethical approval was not required to this type of manuscript due to local laws. The patient has given written informed consent for publication (including the publication of images).

Conflict of Interest Statement

The authors have no conflicts of interest to declare.

Funding Sources

The authors have received no funding for the present paper.

Author Contributions

Francisco Vara-Luiz and Marta Patita wrote the manuscript; Susana Mão de Ferro performed upper endoscopy evaluation; Pedro Pinto-Marques performed EUS

evaluation; Raquel Ilgenfritz performed histopathology evaluation; and Pedro Pinto-Marques, Susana Mão de Ferro, Raquel Ilgenfritz, and Manuela Bernardo critically reviewed the manuscript. All authors approved the final version of this paper.

Data Availability Statement

The complete data of this study are not publicly available due to the patient's privacy but are available from the corresponding author upon reasonable request.

References

- 1 Does GM, Landgren O, McGlynn KA, Curtis RE, Linet MS, Devesa SS. Plasmacytoma of bone, extramedullary plasmacytoma, and multiple myeloma: incidence and survival in the United States, 1992-2004. *Br J Haematol*. 2009;144(1):86-94.
- 2 Souto Filho JTD, Lemos LVd B, Vieira Junior MC, Barboza KP, Castelar BM, Ribeiro AEL, et al. Long-term complete remission of primary gastric plasmacytoma following endoscopic resection. *Ann Hematol*. 2017;96(6):1053-6.
- 3 Oliveira RC, Amaro P, Julião MJ, Cipriano MA. Primary gastric plasmacytoma: a rare entity. *BMJ Case Rep*. 2017;2017:bcr2016218967.
- 4 Rajkumar SV, Dimopoulos MA, Palumbo A, Blade J, Merlini G, Mateos MV, et al. International Myeloma Working Group updated criteria for the diagnosis of multiple myeloma. *Lancet Oncol*. 2014;15(12):e538-48.
- 5 Park CH, Lee SM, Kim TO, Kim DU, Jung WJ, Kim GH, et al. Treatment of solitary extramedullary plasmacytoma of the stomach with endoscopic submucosal dissection. *Gut Liver*. 2009;3(4):334-7.
- 6 Busta Nistal MR, Del Olmo Martínez ML, Corrales Cruz D, Durà Gil M. Gastric plasmacytoma: a rare cause of upper gastrointestinal bleeding. *Rev Esp Enferm Dig*. 2021;113(7):543-4.