

A case of gastric plasmacytoma: Metastasis of multiple myeloma in a young patient

Gastrik plazmasitoma olgusu; Genç bir hastada multiple myelom metastazi

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Multiple myeloma is a monoclonal, immunoproliferative plasma-cell neoplasm of the B lymphoid cells. Extramedullary plasmacytoma is a type of plasma-cell neoplasm in tissues other than bone that can present as a primary tumor or secondary to another plasma-cell neoplasm, such as multiple myeloma. Secondary extramedullary plasmacytoma is usually noted in the advanced stages of the disease, mostly involving the aerodigestive tract. We report a case of secondary extramedullary plasmacytoma involving the stomach in a young patient with multiple myeloma.

Key words: Gastric plasmacytoma, multiple myeloma

Multiple myelom B lenfosit hücre kaynaklı monoklonal immünproliferatif plazma hücre neoplazisidir. Ekstramedüller plazmasitom ise kemik dışında yer alan bir plazma hücre neoplazmı olup primer veya multipl myelom gibi bir başka plazma hücre tümörüne sekonder olarak görülebilir. Sekonder ekstramedüller plazmasitomalar genellikle hastalığın ilerlemiş evrelerinde saptanıp genelde aerodigestif traktusta görülür. Biz de multiple myelomlu genç bir hastada mideyi tutan sekonder ekstramedüller plazmasitom olgusunu sunmayı uygun bulduk.

Anahtar kelimeler: Gastrik plazmasitoma, multipl myelom

INTRODUCTION

Multiple myeloma is a monoclonal, immunoproliferative plasma-cell neoplasm of the B lymphoid cells. Extramedullary plasmacytoma is a type of plasma-cell neoplasm in tissues other than bone that can present as a primary tumor or secondary to another plasma-cell neoplasm, such as multiple myeloma. Secondary extramedullary plasmacytoma is usually noted in the advanced stages of the disease, mostly involving the aerodigestive tract. We report a case of secondary extramedullary plasmacytoma involving the stomach in a young patient with multiple myeloma.

CASE REPORT

A 32-year-old man was diagnosed with kappa light chain multiple myeloma (MM). He was staged as stage III according to both the International Staging System (ISS) and the Durie-Salmon staging system. Bone marrow transplantation was planned. Before bone transplantation chemotherapy, VAD protocol (vincristine, doxorubicin and dexamethasone) was given. After the 4th chemotherapy treatment, he experienced pain on his face, and underwent cranial computed tomography, which

showed a retroorbital mass of 5 cm in diameter. The biopsy of this mass was performed, and plasmacytoma was diagnosed. Radiotherapy to the cranium was given. After the 12th dose of radiotherapy, the development of an oral ulcer that prevented feeding was seen during the follow-up visit. The patient was hospitalized and parenteral nutrition was started. On his 3rd day of hospitalization, paraplegia developed, and metastatic lesions were seen on his thoracic magnetic resonance imaging (MRI), so combined radiotherapy and chemotherapy was started. On the 25th day of combined radiotherapy and chemotherapy, intractable nausea developed and esophagogastroduodenoscopy (OGD) was performed, which revealed multiple friable sessile ulcerated nodular lesions in the gastric body and antrum ranging from 8-10 mm in diameter (Figure 1). Biopsies were obtained and the histopathological examination revealed diffuse infiltration of the mucosa by neoplastic plasma cells (Figures 2-4), which stained (+) with CD138 and (-) with CD20, and also stained (+) with kappa light chain diffusely. Four days later, the patient developed fever of neutropenia and antibiotic treatment was started, but he died on the 3rd day of antibiotic treatment.

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DISCUSSION

Plasma-cell neoplasms are categorized into four groups as MM, plasma-cell leukemias, solitary plasmacytomas of the bone, and extramedullary plasmacytomas (EMPs). EMP is a type of plasma-cell neoplasm in tissues other than bone that can present as a primary tumor or secondary to another plasma-cell neoplasm, such as MM. Secondary EMPs occur in 20% of patients with MM. Most of the patients with EMPs are in their 5th-6th decade and the majority are male. The most common site for extramedullary involvement is the aerodigestive tract, which includes the oropharynx, nasal cavities, sinuses, and larynx. Plasma cell infiltration can involve any segment of the gastrointestinal tract, but this involvement is extremely rare and can occur in only 5% of patients

with EMPs. The most common site for gastrointestinal involvement is the small bowel, which presents with intestinal obstruction and malabsorption, but other sites of involvement include the stomach and colon, and least commonly, esophagus. The endoscopic appearance of gastric plasmacytomas includes ulcers, ulcerated masses, polyposis and thickened folds, and plaque-like lesions (1-4). Most patients with plasmacytomas of the gastrointestinal tract are elderly with nonspecific symptoms, including anorexia, weight loss, epigastric discomfort, or gastrointestinal bleeding. The diagnosis of EMP depends on demonstration of monoclonal plasma-cell tumors outside the bone marrow. The differential diagnosis of gastric plasmacytomas includes non-Hodgkin's lymphomas that may show plasmacytic differentiation,



Figure 1. Endoscopic view of gastric plasmacytoma.

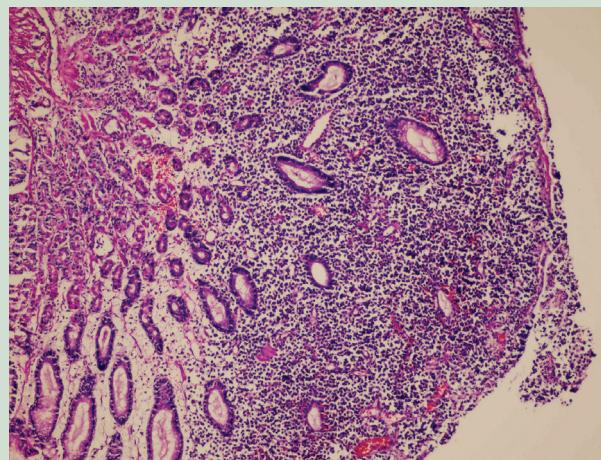


Figure 2. The lamina propria is diffusely infiltrated by neoplastic plasma cells (H&E, X100).

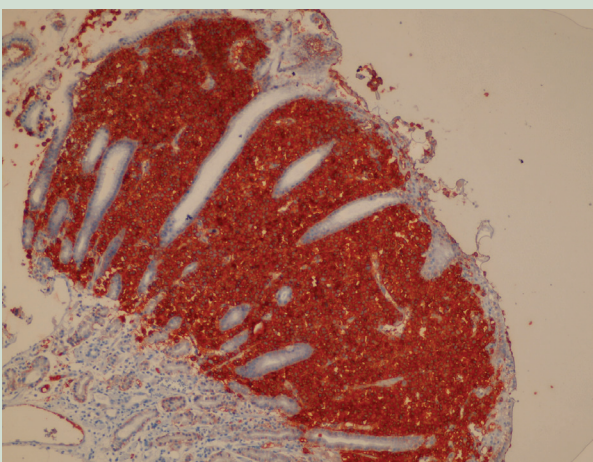


Figure 3. CD138 expression in plasma cells (CD138, X100).

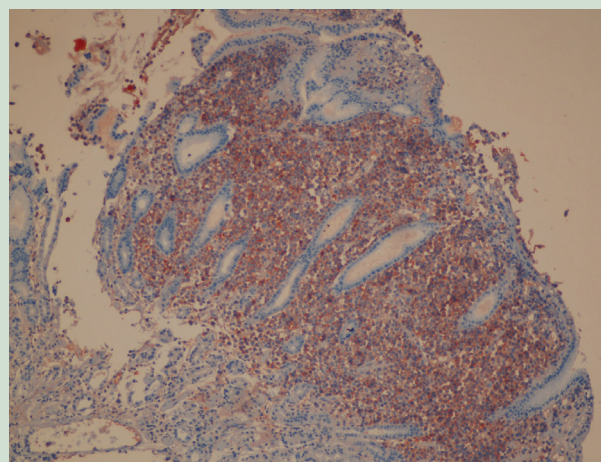


Figure 4. Immunostaining for kappa light chain expression in plasma cells (Kappa, X100).

such as lymphoplasmacytic lymphoma, follicular lymphoma, monocytoid B-cell lymphoma, and particularly, mucosa-associated lymphoid tissue lymphomas. In these lymphomas, neoplastic cells are CD20 (+), CD138 (-) and admixed with variable numbers of plasma cells, unlike a plasmacytoma, which contains an exclusive population of neoplastic plasma cells [CD20 (-)] (5,6).

Extramedullary plasmacytomas (EMPs) are extremely sensitive to radiation therapy, with a 70-95% response to regional therapy (40-55 Gy) reported in the literature (2,7,8). Most of these tumors are in the nasopharynx or upper respiratory tract, but several gastric plasmacytomas have also shown a good response to radiation therapy.

Our case was a young patient with MM and systemic spread, including gastric plasmacytoma, in whom the disease progression was very fast and unresponsive to radiation therapy. The main gastrointestinal complaint was intractable nausea, which was thought at first to be due to chemo-radiotherapy, but with unresponsiveness to medication, and on OGD, gastric plasmacytoma was diagnosed. Unfortunately, the patient had a very progressive disease that precluded bone marrow transplantation. Thus, in patients with MM who are on chemo-radiotherapy, in the presence of intractable nausea, gastric plasmacytoma should be kept in mind, and OGD should be performed without delay.

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