A Huge Mass in the Liver: Plasmacytoma

Karaciğerde Dev Kitle: Plazmasitom

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To the Editor,

In patients diagnosed with multiple myeloma (MM), the diagnosis of extramedullary MM (EMM) is made by different imaging methods and biopsy for the presence of soft tissue masses. EMM is associated with high stage and poor prognosis [1,2,3]. The frequency of EMM was found to be only 3.7% [3].

A 55-year-old male patient applied to the emergency department with abdominal pain and multiple skin lesions (Figures 1A and 1B). At the time of the initial diagnosis, hemoglobin was 7.6 g/dL, creatinine was 2.04 mg/dL, urea was 53 mg/dL, total protein was 123.8 g/L, albumin was 18.4 g/L, corrected calcium was 11.3 mg/dL, lactate dehydrogenase (LDH) was 176 U/L, β2-microglobulin was 12.68 mg/L, and serum free kappa light chain was 330 mg/L with kappa light chain monoclonality detected by serum immunofixation electrophoresis. In the abdominal magnetic resonance imaging (MRI) of the patient, a mass lesion in the liver with a size of 196x187x230 mm and a malignant appearance was detected (Figure 2).

As determined by a Tru-Cut biopsy of the mass, a monotypic plasmacytic infiltration was present, which was CD20 (-), CD19 weakly suspicious (+), CD79a weak (+), CD3 weak (+), CD138 (+), CD38 (+), kappa (+), lambda (-), CD56 (-), and cyclin D1 (-), resulting in a diagnosis of plasmacytoma/plasma cell neoplasia. In the bone marrow, 3% mature polytypic plasma cells were detected. Fine-needle aspiration of skin lesions showed monotypic plasma cells (Figure 1C).

A total of 6 sessions of plasmapheresis and hemodialysis were performed due to hyperviscosity and acute renal failure. The treatment was started with bortezomib at 1.3 mg/m^2 on days 1-8-15-22, cyclophosphamide at 300 mg/m^2 on days 1-8-15-22, and intravenous dexamethasone at 40 mg on days 1-4, 9-12, 17-20, and 25-28. After one course of treatment, hemoglobin was 9.2 g/dL, creatinine was 0.63 mg/dL, total protein was 76.7 g/L, albumin was 31.3 g/L, corrected calcium was 7.2 mg/dL, and LDH was 140 U/L. Abdominal computed tomography revealed that the mass in the liver had regressed to 14 mm at its widest part and there were no macroscopically visible skin lesions remaining.

EMM is an aggressive MM subtype. It has shorter overall survival and progression-free survival compared to classical MM [4,5]. EMM with a mass in the abdomen does not show symptoms until reaching larger sizes. Such cases manifest with abdominal pain and late obstructive symptoms. The size of these tumors was reported to be 11.9 cm and only two cases of tumors larger than 15 cm have been reported in the literature [6]. Most cases with an abdominal mass manifest in the mesentery.

Metastatic tumors often present with irregularly surrounded multilayer appearances, peritumoral edema, and a necrotic hemorrhagic center [7]. With T1-weighted MRI, hepatocellular carcinoma of less than 1.5 cm is often isointense. Well-differentiated tumors are often isointense, whereas moderately to poorly differentiated tumors are more often hyperintense [7,8]. There is no typical image for the differential diagnosis of EMM.

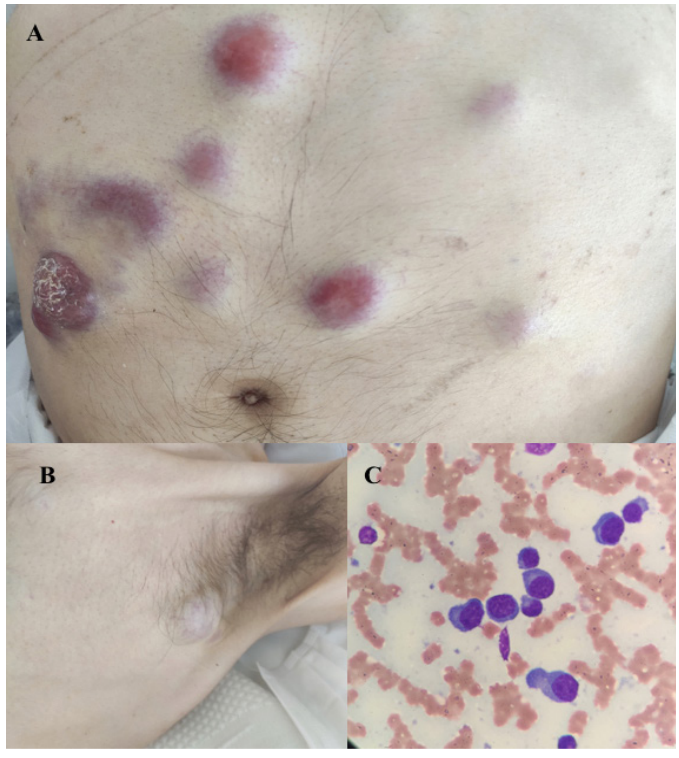

Figure 1. A) Multiple nodular skin lesions on the abdomen; B) axillary mass lesion; C) hematoxylin and eosin staining of fine-needle aspiration from an abdominal skin lesion: plasma cells.

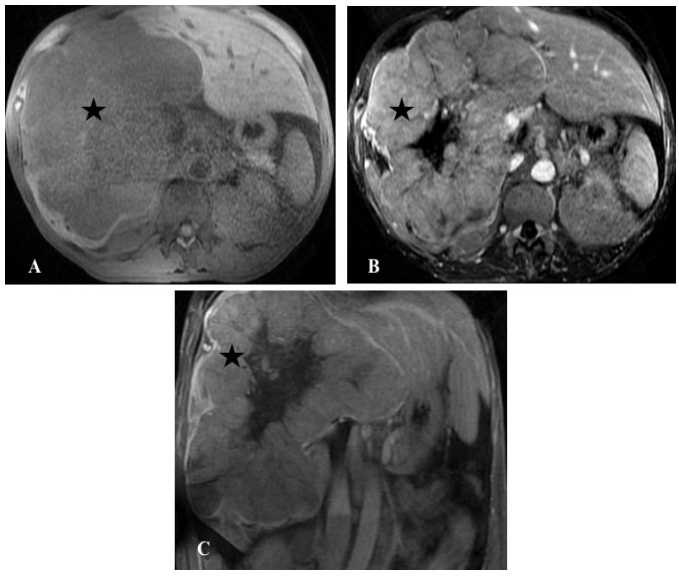

Figure 2. MRI images at initial diagnosis: A) fat-suppressed pre-contrast T1-weighted series, transverse plane; B) fat-suppressed T1-weighted series, arterial phase, transverse plane; C) fat-suppressed T1-weighted series, parenchymal phase, coronal plane.

In conclusion, this case of EMM is the first of its kind to be reported, with size reaching 20 cm and, unlike cases in the literature to date, the absence of mesentery localization.

Keywords: Mass in the liver, Multiple myeloma, Plasmacytoma

Anahtar Sözcükler: Karaciğerde kitle, Multipl myelom, Plazmositoma

Informed Consent: Written informed consent was obtained from the patient for publication of this case report and any accompanying images.

Authorship Contributions

Concept: T.A.C., O.Y., H.G., G.E.H., İ.S.; Design: T.A.C., O.Y., H.G., G.E.H., İ.S.; Data Collection or Processing: T.A.C., O.Y., H.G., G.E.H., İ.S.; Analysis or Interpretation: T.A.C., O.Y., H.G., G.E.H., İ.S.; Literature Search: T.A.C., O.Y., H.G., G.E.H., İ.S.; Writing: T.A.C., O.Y., H.G., G.E.H., İ.S.

Conflict of Interest: No conflict of interest was declared by the authors.

Financial Disclosure: The authors declared that this study received no financial support.

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Received/Geliş tarihi: September 20, 2021
Accepted/Kabul tarihi: November 9, 2021
DOI: 10.4274/tjh.galenos.2021.2021.0545