Primary cutaneous diffuse large B-Cell lymphoma, leg type

Primer kutanöz diffüz büyük B hücreli lenfoma, bacak tipi

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A 55-year-old male presented with a superficial mass over the right leg that had gradually progressed over the last month. The lesion was pruritic and painful. It was firm, indurated, shiny, erythematous, and raised on the surface (Figure 1). There was no lymphadenopathy or hepatosplenomegaly. All routine parameters including bone marrow biopsy were normal.

An incision biopsy was taken from the lesion, which revealed superficial and deep perivascular, nodular and interstitial, bottom-heavy infiltrate comprised predominantly of lymphocytes, which showed a marked crush artifact (Figures 2-4). There were some preserved lymphocytes with enlarged, slightly hyperchromatic nuclei with basophilic nuclei. The epidermis and adnexal structures were spared. Immunological staining revealed a predominance of CD20-positive B-cells, which were bcl-2-positive. A diagnosis of primary cutaneous diffuse large B-cell lymphoma, leg type was made.

The patient was treated with the cyclophosphamide, adriamycin, vincristine, prednisone (CHOP) regimen. Rituximab was not added to the regimen as the patient could not afford it. He did not respond to the treatment and was lost to follow-up.

Figure 1. Indurated swelling over the right leg

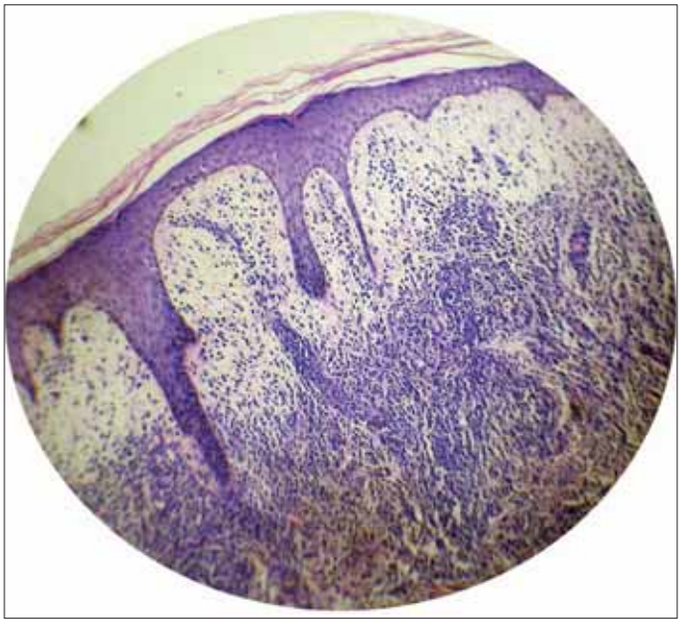

Figure 2. Skin biopsy showing dense, diffuse infiltrates of large cells, predominantly lymphocytes, in the entire dermis and subcutaneous tissue giving a bottom-heavy appearance. The epidermis and adnexal structures were spared (hematoxylin & eosin [H&E], X10)

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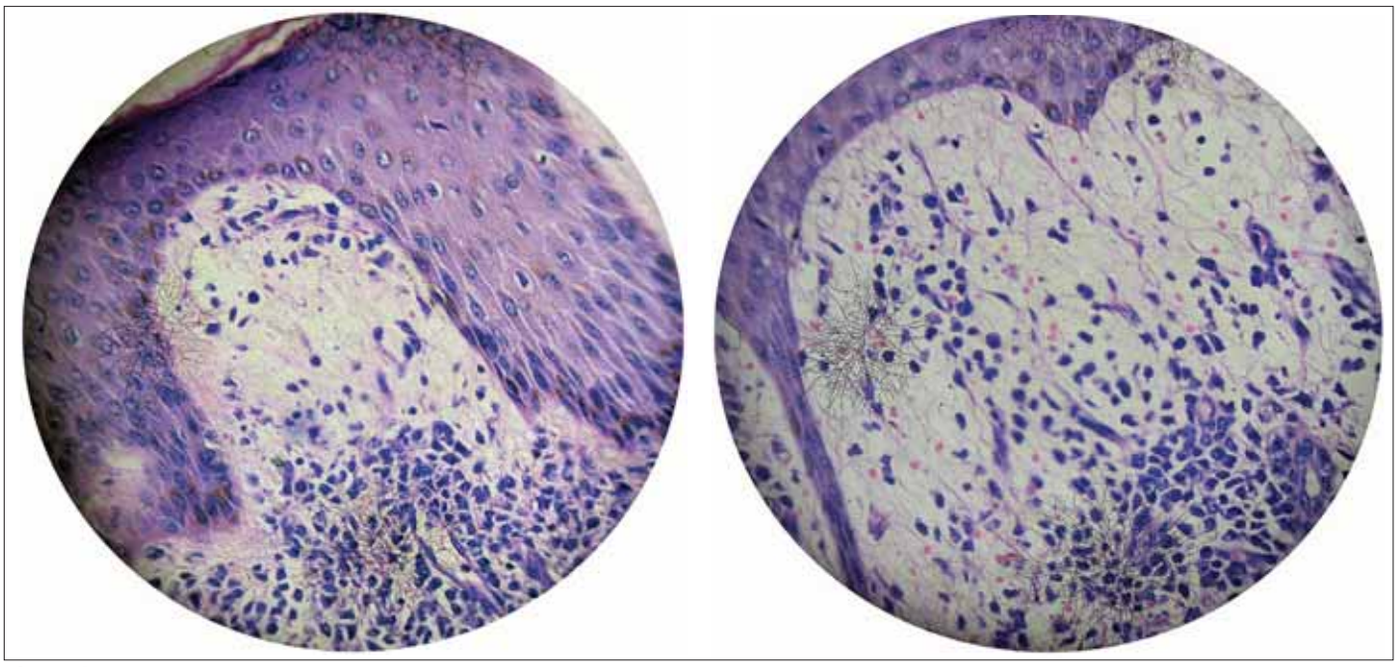

Figure 3-4. Skin biopsy showing dense, diffuse infiltrates of lymphocytes in the entire dermis and subcutaneous tissue giving a bottom-heavy appearance. The epidermis and adnexal structures were spared (H&E, X40)

Primary cutaneous large B-cell lymphomas (leg type) (PCBLS) are diffuse large cell B-cell lymphomas with predominance or confluent sheets of centroblasts and immunoblasts. Characteristically, they present with tumorous skin lesions on the (lower) legs but uncommonly can arise at other sites as well1. Immunological staining shows monotypic surface immunoglobulins and/or cytoplasmic immunoglobulin. Neoplastic cells are CD20- and bcl-2- positive. An exact classification is often not possible. PCBLS represent approximately 5% of cutaneous lymphomas[2]. It has been proposed that most cases of large B-cell lymphoma of the leg represent large-cell lymphomas originating from the lymphocytes of the germinal center.

Primary cutaneous diffuse large B-cell lymphoma, leg type must be differentiated from anaplastic large-cell lymphoma and non-lymphoid tumors such as cutaneous metastases. The clinicopathologic pattern, together with immunohistochemical and molecular features of PCBLS, allows the correct diagnosis in most of the cases.

Informed consent was obtained from the patient.

Conflict of interest

No author of this paper has a conflict of interest, including specific financial interests, relationships, and/or affiliations relevant to the subject matter or materials included in this manuscript.

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