LETTER TO THE EDITOR
DOI: 10.4274/tjh.galenos.2025.2025.0037

Peripheral T-cell Lymphoma, Not Otherwise Specified, Diagnosed From Prostate Tissue: A Rare Case

Rafiye Çiftçiler[1], Hasan Önner[2], Cem Selim[1]
[1]Selçuk University Faculty of Medicine, Department of Hematology, Konya, Türkiye
[2]Selçuk University Faculty of Medicine, Department of Nuclear Medicine, Konya, Türkiye

Rafiye Çiftçiler, Assoc. Prof., Selçuk University Faculty of Medicine, Department of Hematology, Konya, Türkiye
rafiyesarigul@gmail.com - rafiye.ciftciler@selcuk.edu.tr

January 28, 2025
March 19, 2025

To the Editor,

Mature T-lymphocytes give rise to an uncommon subtype of non-Hodgkin lymphoma called T-cell lymphomas (TCLs). Many instances of peripheral T-cell lymphoma (PTCL), a diverse collection of neoplasms, are classified as PTCL-not otherwise specified (PTCL-NOS) because they cannot be classified [1]. Except in Asia, where extra-nodal NK-T cell lymphoma has become the most frequent subtype, PTCL-NOS is still the most common subtype worldwide [2]. The median age upon diagnosis is 60, and most patients are adults. The prevalence of the diagnosis is almost 2:1 higher in males than in women [3, 4]. Thirty-eight % of patients had nodal disease alone, 49% had nodal plus extranodal illness, and 13% had extranodal disease without nodal involvement, according to a worldwide database of 340 cases with PTCL-NOS [4]. Bone marrow was implicated in 20% of instances, while hepatomegaly and splenomegaly were observed in 17% and 24% of patients, respectively [4]. One-third of patients reported having systemic B symptoms, such as fever, night sweats, and weight loss [4]. Extranodal illness is most frequently found in the skin and gastrointestinal system. Lung, salivary gland, and central nervous system involvement are less common [5, 6]. Serum lactate dehydrogenase is high in half of the cases, while hypergammaglobulinemia is seen in 14% of cases. Leukemic presentations are uncommon, however, circulating lymphoma cells may be seen [4]. This report presents a rare case of PTCL-NOS diagnosed from prostate tissue with bone marrow involvement. This patient consented to the publication of his case in a journal. A 65-year-old man presented to the urology clinic with complaints of difficulty urinating for 4 months and was found to have elevated total and free prostate-specific antigen levels of 13 and 1 ng/mL, respectively. There was no history of urinary tract infection. The patient underwent a prostate biopsy. The patient also had B symptoms. Peripheral blood smear revealed normochromic normocytic anemia (hemoglobin 7.1 gr/dL), severe neutropenia ($0.17x10^9$/L), and thrombocytopenia ($18x10^9$/L). Bone marrow aspiration revealed an increased proportion of large lymphocytes, reaching up to 60%. A prostate biopsy confirmed the diagnosis of PTCL-NOS with bone marrow involvement. Positron emission tomography/computed tomography revealed diffuse bone marrow, lymph node, and prostate) involvement (stage IV) as depicted in Figure 1. Chemotherapy was initiated with cyclophosphamide, doxorubicin, vincristine, etoposide, and prednisolone. Anthracycline-based chemotherapy is the cornerstone of immunotherapy for CD30-negative PTCL [7]. The biopsy of the case we presented was found to be CD30 negative. Currently, considering the balance between toxicity and survival outcomes in patients with CD30 positive PTCL, BV+CHP (Brentuximab vedotin, cyclophosphamide, doxorubicin, prednisone) is recommended over other chemotherapy regimens [8]. In the literature, PTCL-NOS diagnosed from prostate tissue is very rare. In cases of elevated PSA, lymphomas other than solid tumors of the prostate should be considered. Rapid and definitive diagnosis and treatment are vital because T-cell lymphomas are aggressive and rapidly expanding.

Keywords: Lymphomas, T-cell lymphoma, Non-Hodgkin lymphoma, Prostate
Informed Consent: Informed consent was obtained from the patient.
Conflict of Interest: No conflict of interest was declared by the authors.
Financial Disclosure: The authors declared that this study received no financial support.

References

1. Amador, C., et al.., Refining Diagnostic Subtypes of Peripheral T-Cell Lymphoma Using a Multiparameter Approach. Mod Pathol, 2024. 38(2): p. 100646.
2. Chen, J.J., et al., Update on T-Cell Lymphoma Epidemiology. Curr Hematol Malig Rep, 2024. 19(3): p. 93-103.
3. Vose, J., J. Armitage, and D. Weisenburger, International peripheral T-cell and natural killer/T-cell lymphoma study: pathology findings and clinical outcomes. J Clin Oncol, 2008. 26(25): p. 4124-30.
4. Weisenburger, D.D., et al., Peripheral T-cell lymphoma, not otherwise specified: a report of 340 cases from the International Peripheral T-cell Lymphoma Project. Blood, 2011. 117(12): p. 3402-8.
5. Chott, A., B. Dragosics, and T. Radaszkiewicz, Peripheral T-cell lymphomas of the intestine. Am J Pathol, 1992. 141(6): p. 1361-71.
6. Gonzalez, C.L., et al., T-cell lymphoma involving subcutaneous tissue. A clinicopathologic entity commonly associated with hemophagocytic syndrome. Am J Surg Pathol, 1991. 15(1): p. 17-27.
7. Carson, K.R., et al., A prospective cohort study of patients with peripheral T-cell lymphoma in the United States. Cancer, 2017. 123(7): p. 1174-1183.
8. Horwitz, S., et al., The ECHELON-2 Trial: 5-year results of a randomized, phase III study of brentuximab vedotin with chemotherapy for CD30-positive peripheral T-cell lymphoma. Annals of Oncology, 2022. 33(3): p. 288-298.

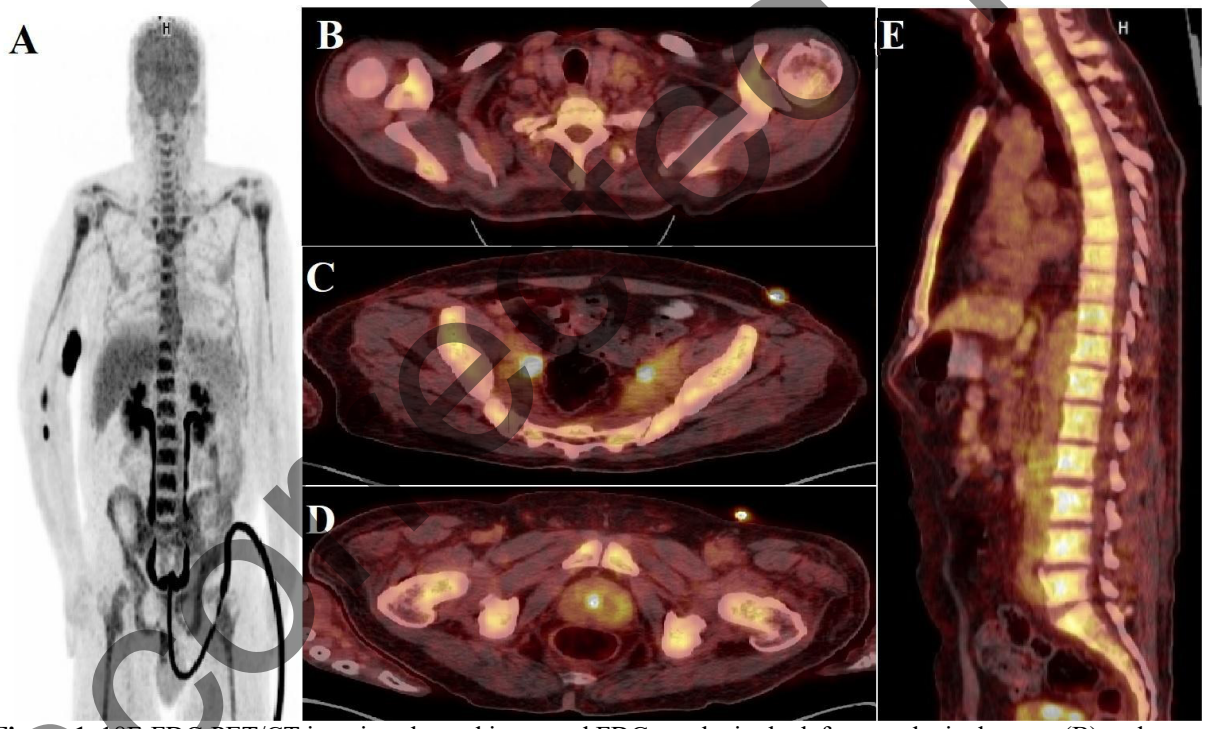

Figure 1. 18F-FDG PET/CT imaging showed increased FDG uptake in the left supraclavicular area (B) and bilateral paraaortic-para iliac lymph nodes in the abdomen (C). Additionally, diffusely increased FDG uptake was observed in the prostate gland parenchyma (D) and bone marrow (A and E)