- Dao K, Vedy D, Lopez J, Staneczek O, Buclin T, Livio F. Imatinib-induced dosedependent interstitial lung disease successfully switched to nilotinib: a case report with concentration exposure data. Int J Hematol 2013;97:299-300.
- Lee NR, Jang JW, Kim HS, Yhim HY. Imatinib mesylate-induced interstitial lung disease in a patient with prior history of *Mycobacterium tuberculosis* infection. Korean J Intern Med 2015;30:550-553.
- Eşkazan AE, Salihoğlu A, Erturan S, Soysal T. Interstitial pneumonitis in a patient with chronic myeloid leukemia. Turk J Hematol 2013;30:435-436.
- 6. Ohnishi K, Sakai F, Kudoh S, Ohno R. Twenty-seven cases of drug-induced

interstitial lung disease associated with imatinib mesylate. Leukemia 2006;20:1162-1164.

- Bergeron A, Rea D, Levy V, Picard C, Meignin V, Tamburini J, Bruzzoni-Giovanelli H, Calvo F, Tazi A, Rousselot P. Lung abnormalities after dasatinib treatment for chronic myeloid leukemia: a case series. Am J Respir Crit Care Med 2007;176:814–818.
- Ando M, Okamoto I, Yamamoto N, Takeda K, Tamura K, Seto T, Ariyoshi Y, Fukuoka M. Predictive factors for interstitial lung disease, antitumor response, and survival in non-small-cell lung cancer patients treated with gefitinib. J Clin Oncol 2006;24:2549-2556.



## Address for Correspondence/Yazışma Adresi: Zhuan-Bo LUO, M.D.,

Department of Respiratory Diseases, Ningbo First Hospital, Affiliated Medical School of Ningbo University, Ningbo, China

E-mail : luozhuanbo2929@163.com ORCID-ID: orcid.org/0000-0003-0684-8363

Received/Geliş tarihi: April 12, 2017 Accepted/Kabul tarihi: July 28, 2017

DOI: 10.4274/tjh.2017.0155

## Prostate Involvement in a Patient with Follicular Lymphoma

Foliküler Lenfomalı Hastada Prostat Tutulumu

Seda Yılmaz<sup>1</sup>, Sinan Demircioğlu<sup>1</sup>, Özlen Bektaş<sup>1</sup>, Özcan Çeneli<sup>1</sup>, Sıdıka Fındık<sup>2</sup>

<sup>1</sup>Necmettin Erbakan University Meram Medicine Faculty, Department of Hematology, Konya, Turkey <sup>2</sup>Necmettin Erbakan University Meram Medicine Faculty, Department of Pathology, Konya, Turkey

## To the Editor,

While extranodal involvement is observed in 50% of cases of non-Hodgkin's lymphoma, prostatic involvement is rare. Prostatic lymphoma accounts for 0.09% of all prostate neoplasms and 0.1% of all non-Hodgkin's lymphomas [1].

Our patient was monitored for 4 years and had stage 4BS follicular lymphoma (bone marrow involvement; mesenteric lymph nodes in the abdomen, the largest of which was measured as 9x4 cm; cervical and mediastinal lymph nodes; and splenomegaly and B symptoms) at the time of diagnosis. He received CVP (cyclophosphamide, vincristine, prednisolone), CHOP (cyclophosphamide, adriamycin, vincristine, prednisolone), and gemcitabine therapy, respectively, and had lower urinary tract symptoms during follow-up. A hypertrophic prostate was palpated during the physical examination. The prostate-specific antigen (PSA) level was measured to be 8.3 (normal range: 0-4) ng/mL. Urinary analysis showed microscopic hematuria. Ultrasound examination detected a prostate volume of 60 mL. Transurethral resection of the prostate (TUR-P) pathology results showed a diffuse lymphocytic infiltration and positive staining for CD20, CD10, CD5, and BCL-2 (Figure 1). The symptoms of the patient regressed after treatment with rituximab plus bendamustine.

Prostate cancer is the most common cancer among men worldwide. There were 1,618,000 cases with 366,000 deaths in 2015 [2]. Prostatic lymphoma is a rare condition that accounts for 0.09% of all prostate neoplasms. While extranodal involvement

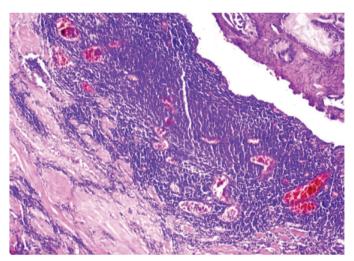


Figure 1. Diffuse lymphocytic infiltration.

is observed in about 50% of cases of non-Hodgkin's lymphoma, prostatic involvement is rare. The usual clinical manifestations of prostatic involvement in lymphomas are lower urinary tract symptoms and acute urinary retention. High serum PSA levels are not typical for prostatic lymphoma. Our patient presented with high PSA levels.

A study that investigated prostate materials from 4831 subjects determined lymphoma in 29 subjects (0.6%). Eleven (0.23%) subjects had a history of concurrent lymphoma [3]. In patients with prostate cancer, the incidence of non-Hodgkin's lymphoma of the prostate was observed to be 0.2% in a series of 4319 radical prostatectomy cases [4] and 1.19% in another series of 1092 cases [5].

In conclusion, prostatic lymphoma is clinically difficult to distinguish from benign prostatic hyperplasia and prostatic carcinoma as it occurs in the same age group and presents with similar symptoms; thus, the histopathological and immunohistochemical findings in TUR-P material are important. Early and appropriate treatment improves the patient's quality and length of life.

Keywords: Follicular lymphoma, Extranodal, Prostatic involvement

Anahtar Sözcükler: Foliküler lenfoma, Ekstranodal, Prostat Tutulumu

Conflict of Interest: The authors of this paper have no conflicts of interest, including specific financial interests, relationships, and/or affiliations relevant to the subject matter or materials included.

## References

- 1. Sarris A, Dimopoulos M, Pugh W, Cabanillas F. Primary lymphoma of the prostate: good outcome with doxorubicin-based combination chemotherapy. J Urol 1995;153:1852-1854.
- Global Burden of Disease Cancer Collaboration, Fitzmaurice C, Allen 2. C, Barber RM, Barregard L, Bhutta ZA, Brenner H, Dicker DJ, Chimed-Orchir O, Dandona R, Dandona L, Fleming T, Forouzanfar MH, Hancock J, Hay RJ, Hunter-Merrill R, Huynh C, Hosgood HD, Johnson CO, Jonas JB, Khubchandani J, Kumar GA, Kutz M, Lan Q, Larson HJ, Liang X, Lim SS, Lopez AD, MacIntyre MF, Marczak L, Marquez N, Mokdad AH, Pinho C, Pourmalek F, Salomon JA, Sanabria JR, Sandar L, Sartorius B, Schwartz SM, Shackelford

KA, Shibuya K, Stanaway J, Steiner C, Sun J, Takahashi K, Vollset SE, Vos T, Wagner JA, Wang H, Westerman R, Zeeb H, Zoeckler L, Abd-Allah F, Ahmed MB, Alabed S, Alam NK, Aldhahri SF, Alem G, Alemayohu MA, Ali R, Al-Raddadi R, Amare A, Amoako Y, Artaman A, Asayesh H, Atnafu N, Awasthi A. Saleem HB. Barac A. Bedi N. Bensenor I. Berhane A. Bernabé E. Betsu B. Binagwaho A, Boneya D, Campos-Nonato , Castañeda-Orjuela C, Catalá-López F, Chiang P, Chibueze C, Chitheer A, Choi JY, Cowie B, Damtew S, das Neves J, Dey S, Dharmaratne S, Dhillon P, Ding E, Driscoll T, Ekwueme D, Endries AY, Farvid M, Farzadfar F, Fernandes J, Fischer F, G/Hiwot TT, Gebru A, Gopalani S, Hailu A, Horino M, Horita N, Husseini A, Huybrechts I, Inoue M, Islami F, Jakovljevic M, James S, Javanbakht M, Jee SH, Kasaeian A, Kedir MS, Khader YS, Khang YH, Kim D, Leigh J, Linn S, Lunevicius R, El Razek HMA, Malekzadeh R, Malta DC, Marcenes W, Markos D, Melaku YA, Meles KG. Mendoza W. Mengiste DT. Meretoja TJ. Miller TR. Mohammad KA, Mohammadi A, Mohammed S, Moradi-Lakeh M, Nagel G, Nand D, Le Nguyen Q, Nolte S, Ogbo FA, Oladimeji KE, Oren E, Pa M, Park EK, Pereira DM, Plass D, Qorbani M, Radfar A, Rafay A, Rahman M, Rana SM, Søreide K, Satpathy M, Sawhney M, Sepanlou SG, Shaikh MA, She J, Shiue I, Shore HR, Shrime MG, So S, Soneji S, Stathopoulou V, Stroumpoulis K, Sufiyan MB, Sykes BL, Tabarés-Seisdedos R, Tadese F, Tedla BA, Tessema GA, Thakur JS, Tran BX, Ukwaja KN, Uzochukwu BSC, Vlassov VV, Weiderpass E, Wubshet Terefe M, Yebyo HG, Yimam HH, Yonemoto N, Younis MZ, Yu C, Zaidi Z, Zaki MES. Zenebe ZM. Murray CJL. Naghavi M. Global, regional, and national cancer incidence, mortality, years of life lost, years lived with disability, and disability-adjusted life-years for 32 cancer groups, 1990 to 2015: a systematic analysis for the Global Burden of Disease Study. JAMA Oncol 2017;3:524-548.

- Chu PG, Huang Q, Weiss LM. Incidental and concurrent malignant 3. lymphomas discovered at the time of prostatectomy and prostate biopsy: a study of 29 cases. Am J Surg Pathol 2005;29:693-699.
- Eisenberger CF, Walsh PC, Eisenberger MA, Chow NH, Partin AW, Mostwin JL, 4. Marshall FF, Epstein JI, Schoenberg M. Incidental non-Hodgkin's lymphoma in patients with localized prostate cancer. Urology 1999;53:175-179.
- 5 Terris MK, Hausdorff J, Freiha FS. Hematolymphoid malignancies diagnosed at the time of radical prostatectomy. J Urol 1997;158:1457-1459.



Address for Correspondence/Yazışma Adresi: Sinan DEMİRCİOĞLU, M.D., Necmettin Erbakan University Meram Medicine Faculty, Department of Hematology, Konya, Turkey Phone: +90 555 432 44 74 E-mail : sinandemircioglumd@gmail.com ORCID-ID: orcid.org/0000-0003-1277-5105

Accepted/Kabul tarihi: June 30, 2017 DOI: 10.4274/tjh.2017.0181

Received/Gelis tarihi: May 02, 2017