



Pathology Page

Primary prostatic diffuse large B-cell lymphoma

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A 52-year-old man suffered from urinary frequency and urge incontinence for 2 years. Intermittent gross hematuria was noted in the previous month. He denied other systemic diseases or surgical history. A firm mass in the anterior rectum was revealed on digital rectal examination, favoring external compression from an indurated prostate.

Cystoscopy showed an enlarged prostate and no urinary bladder tumor. The serum prostate-specific antigen level was 0.747 ng/mL. Other laboratory data were within reference levels. Computed tomography revealed a picture favoring prostate cancer with invasion of the seminal vesicles and bladder (Fig. 1). Transurethral resection of the prostate was performed. Histopathology features revealed infiltration of discohesive, large tumor cells in the stroma (Fig. 2A). Immunohistochemically, the tumor cells were positive for CD20 (Fig. 2B). There was no history of lymphoma or systemic enlarged lymphadenopathy. Primary prostatic diffuse large B-cell lymphoma was diagnosed. The patient received chemotherapy. Post-therapy positron emission tomography–computed tomography revealed metabolic remission of the prostatic lesion. The patient achieved complete remission with regular follow-up.

Prostatic lymphomas are uncommon, and are mostly secondary involvement from systemic lymphoma. Primary prostatic diffuse large B-cell lymphoma is rare. The criteria for primary prostatic

lymphoma by Bostwick and Mann include: (1) presenting symptoms attributable to prostatic enlargement; (2) involvement of the prostate predominantly; and (3) absence of involvement of the liver, spleen, lymph nodes or peripheral blood within 1 month of diagnosis. The clinical presentation includes frequency, urgency, and obstructive symptoms, similar to benign prostate hyperplasia. The serum prostate-specific antigen level is usually not elevated. An accurate diagnosis can be made by histology and immunohistochemical study. The prognosis is dependent on the tumor subtype and the stage.



Fig. 1. Computed tomography reveals a picture favoring prostate cancer with invasion of the seminal vesicles and bladder.

Conflict of interest: none.

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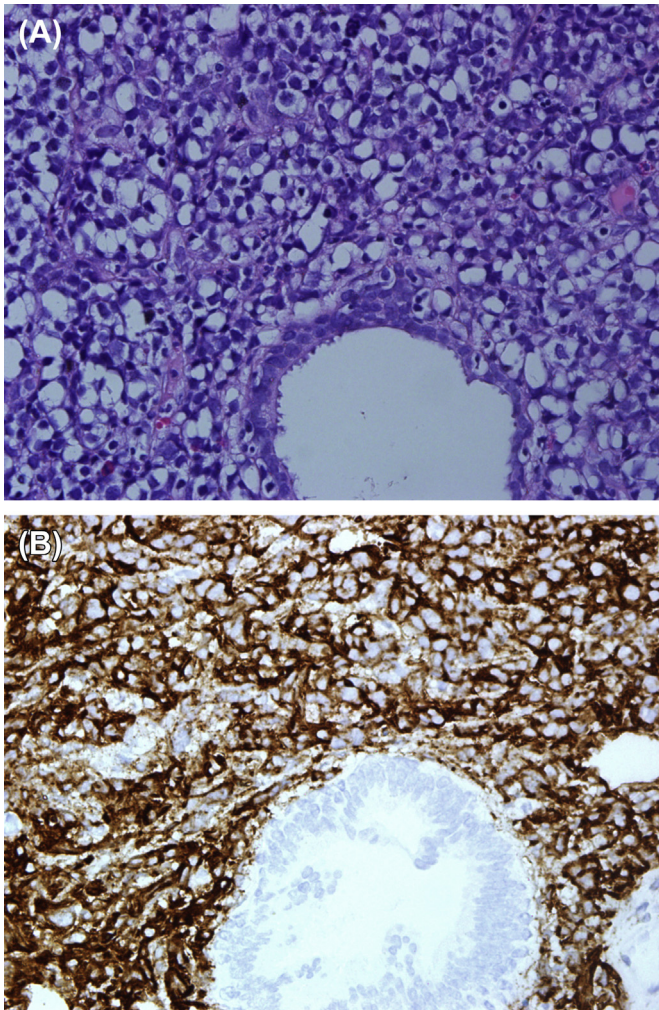


Fig. 2. (A) Histopathology shows infiltration of large tumor cells (hematoxylin–eosin stain, $\times 400$). (B) Immunostaining with CD20.

Further reading

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