

## Case of Bilateral Primary Testicular Lymphoma in a Chronic Renal Disease Patient

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### Abstract

Lymphoma constitutes about 5% of testicular neoplasms and aggressive form of extranodal lymphoma. A case of bilateral scrotal swelling in a known case of Chronic renal disease of which on USG showed multiple hypoechoic lesions on further histopathological study was diagnosed as primary diffuse primary large B-cell NHL and later treated with chemotherapy.

**Keywords:** Testicular lymphoma; Chronic renal failure

**Abbreviations:** USG: Ultrasonography; NHL: Non Hodgkins Lymphoma

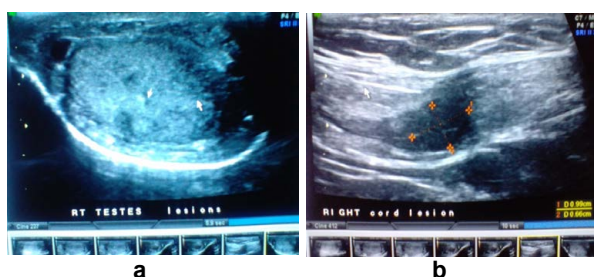
### Introduction

Primary testicular lymphoma (PTL) is an uncommon and aggressive form of extranodal non-Hodgkin lymphoma (NHL) accounting for <5% of testicular malignancies and 1% to 2% of NHL cases. With a median age at diagnosis of 66 to 68 years, PTL is both the most common testicular malignancy in men age >60 years and the most common bilateral testicular neoplasm. Population-based studies have estimated the annual incidence at 0.09 to 0.26 per 100,000 population [1].

### Case Presentation

A 45-year-old man presented to his general practitioner with a painless bilateral testicular enlargement over a period of 3 months. The patient was a known case of chronic renal failure on dialysis for last 10 years with no relevant surgical history. He did not report any dysuria, fever or weight loss. Sonography assessment revealed both testis were enlarged in size, Right testis measures 6.1 cm in length and 4.8 cm in width., Left testis was 6.2 cm in length and 4.2 cm in width. Both testis showed multiple hypoechoic lesions (sub cm) size and testis shows heterogenous echotexture. Colour Doppler showed increased vascularity. Right spermatic cord was bulky and shows heterogenous hypoechoic lesion measuring 0.9 × 0.6 cm, showing internal vascularity on color Doppler. Left cord was unremarkable. Left epididymis was bulky and showed an ill-defined heterogenous hypoechoic lesion measuring approximately 2.1 × 1.3 cm with internal vascularity (Figures 1a and 1b).

Further the sonography of whole abdomen was screened there were no abdominal lymphadenopathy. Changes of chronic renal disease in the form of atrophic kidneys with raised renal echogenicity was noted.



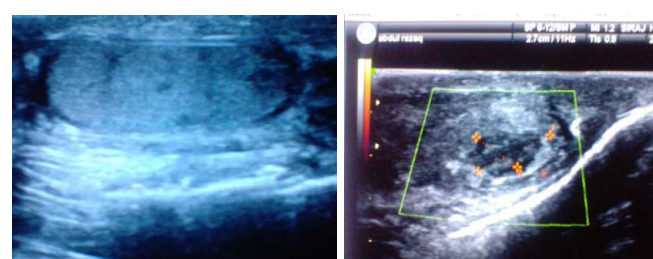
**Figure 1:** (a) B mode ultrasound image demonstrates multiple illdefined hypoechoic lesions. (b) Right cord shows hypoechoic lesion measuring 9 × 6 mm.

These features are non-specific and the differential diagnosis includes tuberculosis, leukaemia, sarcoidosis.

Histology is thus warranted to confirm the diagnosis. The patient underwent a right inguinal orchidectomy and was diagnosed with diffuse primary large B-cell non-Hodgkin's lymphoma. Plain CT scan was done of chest and abdominal to rule out abdominal and mediastinal lymphadenopathy, it was unremarkable. A left orchidectomy was performed 1 month later. Bone marrow aspirate and trephine biopsy were normal and he was started on a dedicated chemotherapeutic regimen. Patients HIV was done which was non-reactive. Lumbar puncture was not performed as there were no neurological signs or symptoms (Figures 2a and 2b).

### Discussion

Testicular lymphoma was first reported by Malassez and Curling in 1866. Primary testicular non-Hodgkin's lymphoma accounts for 1–2% of all non-Hodgkin's lymphomas and 5% of testicular cancers. It affects older men (mean age 67 years) and the most common histological subtype is diffuse large B-cell lymphoma. Presentation is usually with a unilateral testicular mass and up to 90% have stage I/II disease at diagnosis with bilateral testicular involvement occurring in 35% of cases. Relapse and extra-nodal infiltration is common.



**Figure 2:** (a) B mode ultrasound image demonstrates multiple illdefined hypoechoic lesions. (b) Right epididymis shows hypoechoic lesion.

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Pathologically, lymphomas appear as a diffuse, symmetric enlargement of the entire organ with involvement of epididymis and spermatic cord but without invasion through the tunica vaginalis. The hallmark of lymphoma is an infiltrative growth pattern that tends to surround and compress before destroying the seminiferous tubules. The histologic pattern is that of the poorly differentiated or large cell types [2-5].

## Conclusion

Primary testicular lymphoma is rare accounting for 1% of non-Hodgkin's lymphomas and usually occurs in older men. Early detection is important in the epidemiology of testicular lymphoma. The sonographic appearance is not specific for primary testicular lymphoma [6-8]. Treatment for early stage disease comprises of orchidectomy followed by chemotherapy and prophylactic scrotal radiotherapy with/without iliac, para-aortic lymph node radiotherapy. Differential diagnosis of multiple small hypoechoic lesions includes tuberculosis, leukaemia, sarcoidosis. Clinical data and inputs from a multidisciplinary team are important for effective patient management.

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