

## Case Report-I

# Primary Prostatic Non Hodgkin's Lymphoma: A case report

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### ABSTRACT

**Primary prostatic lymphoma is an uncommon extranodal lymphoma. We report here a case of 74 years old man who presented with features of urinary tract obstruction. C T scan revealed a mass in the prostatic region. Prostatic biopsy was reported as diffuse large B cell lymphoma. Presently the patient is on standard CHOP chemotherapy and in good general condition.**

### INTRODUCTION

Malignant lymphoma involving the prostate is rare, whether presenting as primary extranodal lymphoma or as secondary spread to the prostate from other sites. Because of its rarity it is seldom considered in the clinical and histological differential diagnosis of prostatic enlargement.<sup>1</sup> We report here a case of an elderly male with enlargement of the prostate by non Hodgkin's lymphoma( NHL).

### Case report

A 74 years old patient with well controlled benign prostatic hypertrophy for 6 years on oral hormone therapy i.e.Tab Terazosin with normal serum PSA level, developed urgency and frequency of micturition of 3 months duration followed by acute retention of urine requiring catheterization. Per rectal examination revealed a hard and nodular prostate. On investigation his routine haematological and renal function tests were normal. His X-ray chest was normal. The bone marrow was uninvolved and PSA was 2.72 ng/ml.

The CT scan of abdomen and pelvis revealed that prostate was grossly enlarged in

size and appeared to be totally replaced by an extensive lobulated homogenous solidly enhancing soft tissue mass. The size of the mass was approximately 11x8x13 cms in maximum axial and vertical dimensions causing marked elevation of urinary bladder and detrusor ischiorectal from chronic outlet obstruction. The mass exhibited a lobulated outline, loss of fat planes with the rectum posteriorly and the levator ani muscles laterally, extending into the ischiorectal fossa bilaterally. The lesion exhibited more or less homogeneously solid enhancement and attenuation characteristics. Multiple solidly enhancing lymph nodes were also appreciated in the bilateral inguinal regions, bilateral internal and external iliac regions with the largest nodes measuring approximately 2.5 cms in maximum transverse dimensions (Fig.1).

Transrectal USG revealed an enlarged prostate weighing 134 gms and normal seminal vesicles.

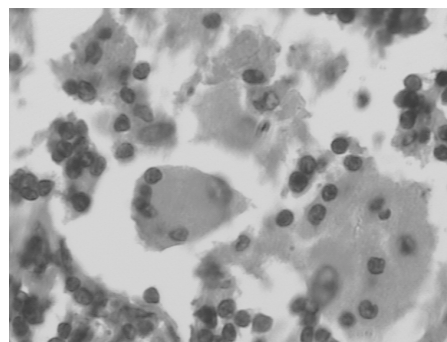


Fig.1.CT scan of pelvis before chemotherapy shows mass lesion in the prostate region

Uroflometry showed a maximum flow rate of 7.5 ml and an average flow rate of 3.7 ml. The graph pattern was suggestive of obstruction.

Prostatic biopsy revealed non Hodgkin's lymphoma (NHL), diffuse large B cell (DLBCL) type. The immunohistochemistry showed CD 20 positivity and CD3 negativity (Fig.2).

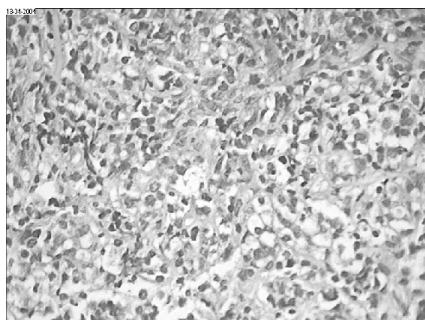


Fig.2.Histopathology:Diffuse large cell non hodgkin's lymphoma of prostate

With final diagnosis of primary non hodgkin's lymphoma of the prostate. Patient received standard CHOP chemotherapy. His CT scan done after 3 cycles shows complete regression in the prostatic mass lesion (Fig.3).

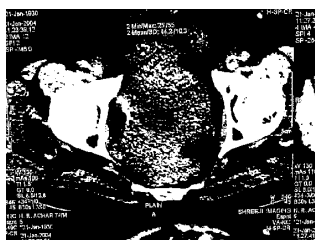


Fig.3.CT scan of pelvis after 3 cycles of CHOP chemotherapy shows regression in the prostatic mass lesion

## DISCUSSION

The clinical presentation of malignant lymphoma of the prostate is difficult to distinguish from other prostatic diseases causing lower urinary tract obstructive symptoms. Urgency, frequency, occasional hematuria and acute retention are the most common presenting symptoms. These obstructive symptoms nearly were always attributed to nodular hyperplasia or prostatic carcinoma even in patients with a previous diagnosis of lymphoma. Systemic symptoms were rare.<sup>8</sup> Sarris et al reported 3 cases with primary lymphoma of the prostate. All

presented with features of prostatism that caused renal failure in 2 cases<sup>9</sup>, Bostwick et al reported 13 cases of malignant lymphoma involving the prostate gland, mean age being 60 years (range, 30-80 years). In only one patient there was clinical suspicion of lymphoma before surgery. Three had primary extra nodal lymphoma of the prostate.<sup>5</sup> Patel et al reported a frequency of less than 10% of urinary tract involvement by NHL, with less than 1% involving the prostate.<sup>10</sup> In nearly all reported cases the diagnosis of lymphoma involving the prostate has been made only after tissue sections were examined.

Our patient presented with the features of urinary tract obstruction. He did not have peripheral lymphadenopathy. However CT scan revealed inguinal and iliac lymphadenopathy. According to strict criteria this obviates the diagnosis of primary prostatic lymphoma. However, given the fact that the site of maximum involvement was the prostate and the involved lymph nodes were in the drainage area, we feel that this situation is no different to that which affects in other extranodal sites such as the stomach. Hence, this case should be considered as primary NHL of the prostate with inguinal nodal involvement (stage IIE). The diagnosis was made by prostatic biopsy. He did not undergo surgery.

Various studies have shown different histopathology of NHL involving the prostate. Diffuse large cell lymphoma of prostate is reported by many authors. Other histologies described as small cell lymphocytic, diffuse small cleaved cell, large cell immunoblastic, polymorphous type (T cell by immunotyping).<sup>5,11,12</sup> Low grade B cell mucosa associated lymphoid tissue (MALT) lymphoma of the prostate has also been reported.<sup>13,14,15</sup> Our patient had a non hodgkin's lymphoma, diffuse large B cell type with CD 20 positivity.

Prostatic lymphoma has been treated with combination chemotherapy and radiotherapy. The combination of chemotherapy drugs using cyclophosphamide, doxorubicin, vincristine, VP16 and prednisolone has been reported.<sup>9,11,12,14</sup> Some studies show good response to radiotherapy.<sup>12,15</sup>

We are treating our patient with standard CHOP chemotherapy.

The prostate is a rare extranodal site of malignant lymphoma. It should be considered in the differential diagnosis of lower urinary tract obstruction particularly in patients with diffuse prostatic enlargement and a prior history of lymphoma. A review of the literature suggests that the poor prognosis reported for prostatic lymphoma might be explained by treatment that was acceptable at the time but would be considered suboptimal by current criteria. We recommend thorough staging in all patients with prostatic lymphoma and treatment with doxorubicin based regimen according to disease stage and histologic classification.

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