



A CASE REPORT: PROSTATIC ADENOCARCINOMA METASTASIZING TO TESTIS

Pathology

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ABSTRACT

Prostatic Adenocarcinoma is the most frequently diagnosed carcinoma in the male population typically in men older than age 50 years. Its metastasis into testis is a rare incidence. The first case of the prostate carcinoma with metastases into a testis was published by Semans in 1938. We present a case of 61 years old male who presented with the complaint of increased frequency of urination and dysuria without hematuria. A prostate biopsy revealed Adenocarcinoma of prostate with a Gleason score of 8 (5+3). A bilateral orchidectomy done for therapeutic purpose showed a foci of metastatic deposits of Adenocarcinoma of prostate in one testis which is a rare presentation.

KEYWORDS

Prostatic Adenocarcinoma, Metastasis, Testis

INTRODUCTION

Prostatic Adenocarcinoma is the most frequently diagnosed carcinoma in the male population typically in men older than age 50 years. Generally, prostatic adenocarcinoma metastasizes to pelvic lymph nodes, bones, lungs and liver. Nonetheless, it is capable of spreading to any organ, including those deemed resistant to the establishment of prostatic adenocarcinoma metastases. Prostatic adenocarcinoma metastasis into testis is a rare incidence. It occur in upto 4% of all prostate cancer cases and are often detected incidentally after orchidectomy treatment for advanced disease.[1] The first case of the prostate carcinoma with metastases into a testis was published by Semans in 1938.[2]

CASE REPORT

A 61 year old male presented to the hospital with a 1 year history of increased frequency of urination and dysuria without hematuria. His serum prostate specific antigen (PSA) level was >150ng/ml. A prostate biopsy was performed which revealed an Adenocarcinoma of prostate with Gleason score of 8 (5+3). PET scan of the patient detected metastasis into bone and liver.

Bilateral orchidectomy was done for therapeutic purpose and sent for histopathological examination. Grossly, each testis measured 5x4x3cm. Cut section of one testis was grey brown with focal grey white area. H&E stained sections of the same revealed foci of metastatic deposits of Adenocarcinoma of prostate. (Figure 1,2).

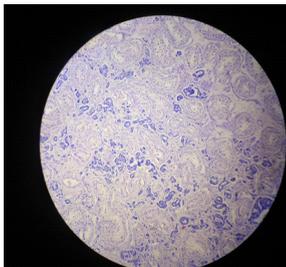


Figure 1 H&E stained section showing foci of metastatic deposits of Adenocarcinoma of prostate at 100X.

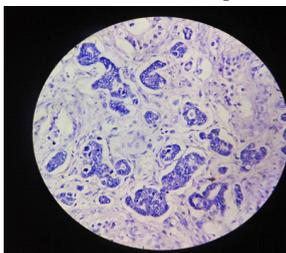


Figure 2: H&E stained section showing foci of metastatic deposits of Adenocarcinoma of prostate at 400X.

DISCUSSION

The testis doesn't represent a suitable environment for the establishment and growth of the secondary tumors due to the relatively low scrotum temperature. [3] With the exception of the infiltration of leukemia and lymphoma, secondary neoplasms of the testis are rare, with a reported incidence of 0.02-2.5%. [4,5,6,7] Prostate carcinoma may spread to the testis by retrograde venous diffusion, arterial embolism, retrograde lymphatic spread or direct extension via vas deferens. [7,8]

Bubendorf et al., in the series of 1589 patients with the prostate carcinoma, showed that 35% of the patients had hematogenous metastasis, mostly in bones (90%), the lungs (40%) and the liver (25%) while the metastasis in the testis were found in only 0.5% of the cases. [9]

Clinical manifestation of secondary testicular tumors from the prostate are varied. Most often the lesions are unsuspected clinically and detected incidentally during orchidectomy for advanced prostate carcinoma. [10] Less frequently, a palpable mass is detected which may be confused with a primary testicular neoplasm. [11].

The histological features of testicular metastasis from prostate cancer are similar to those of primary prostate cancer. [12] The prognostic significance of testicular metastasis from prostate carcinoma remains unknown. The study by Tu et al suggested that prostate with testicular metastasis is equally sensitive to endocrine and radiation therapy. [1]

CONCLUSION:

To conclude, testicular metastases from prostatic carcinoma are extremely rare. Testicular metastases need to be considered as a sign of prostate cancer progression and an adequate therapy.

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