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RESEARCH ARTICLE

METASTATIS TO THE GLANS PENIS FROM PROSTATE ADENOCARCINOMA- A RARE PRESENTATION

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ABSTRACT

Penile metastases of adenocarcinoma of prostate is rarely seen. It is a devitalizing condition at presentation with poor prognostic implication and poor survival. Conservative management is generally recommended with focus on improving the quality of life of such patients. We present a case of 93 yr male patient with a whitish growth over the glans penis along with left sided inguinal lymphadenopathy. Patient was a known case of prostatic carcinoma with raised PSA levels. Histopathological examination and Immunohistochemistry with Prostatic specific antigen revealed the diagnosis of metastatic prostatic adenocarcinoma

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INTRODUCTION

Prostate cancer is the 2nd most common type of cancer and the 6th leading cause of cancer related deaths worldwide. It is more commonly diagnosed in men above 50 years of age (Center, 2012). Before the advent of PSA, patients with Prostate cancer presented at late stage and common presentation were lower urinary tract symptoms or urinary retention, back pain, and hematuria. Currently, with PSA screening, most Prostate cancers are diagnosed in an asymptomatic stage (Lamb et al., 2007). Lymph nodes and the skeleton are two common sites of metastasis in this cancer, whereas brain and penile metastasis are rarely reported (Bubendorf et al., 2000; Philip, 2003). Only a handful of cases of penile metastasis are reported in literature of which metastasis to glans penis is even rarer. Herin we report an unusal case of penile metastasis of prostate adenocarcinoma.

CASE REPORT

A 93-year-old male patient presented with penile growth, acute urinary retention, pain in lower abdomen and paraphimosis. He was a known case of prostatic adenocarcinoma diagnosed 3 years back at another hospital and was started on hormonal manipulation.

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Physical examination revealed around 1 cm greyish white growth on the dorsal aspect of glans penis along with left side palpable inguinal lymph node around 2x 2 cm in size. Digital rectal examination revealed hard enlarged prostate with multiple nodules. On admission serum prostate specific antigen (PSA) levels were elevated (300ng/mL). The patient lacked any details pertaining to any previous histologic and radiologic findings. Keeping in view the advancing age and general status of the patient, the obvious clinical findings and raised serum PSA levels further invasive procedures were not recommended. Left side Inguinal lymph node was enlarged. The lymph node was subjected to FNAC (Fine Needle Aspiration Cytology) which revealed metastatic adenocarcinoma The incisional biopsy from penile growth was performed and sent for histopathology. Further microscopic examination showed the presence of a tumour in the dermis (Fig A). Tumour was arranged in variably sized lobules with microglandular Pattern (FigB) .Increased mitotic avtivity was observed. Overlying skin was free of tumour and showed pseudocarcinomatous hyperplasia of epidermis (Fig C). Overall features were those of poorly differentiated metastatic adenocarcinoma. Patient was a known case of Prostate adenocarcinoma with raised PSA levels so metastasis from Prostate was suggested. It was further confirmed on Immunohistochemistry with PSA. Neoplastic cells showed 3 + cytoplasmic positivity in neoplastic cells (immunoreactive in 51 -75 % cells) (Fig D). So a final diagnosis of metasatic Prostatic adenocarcinoma to glans penis was rendered.

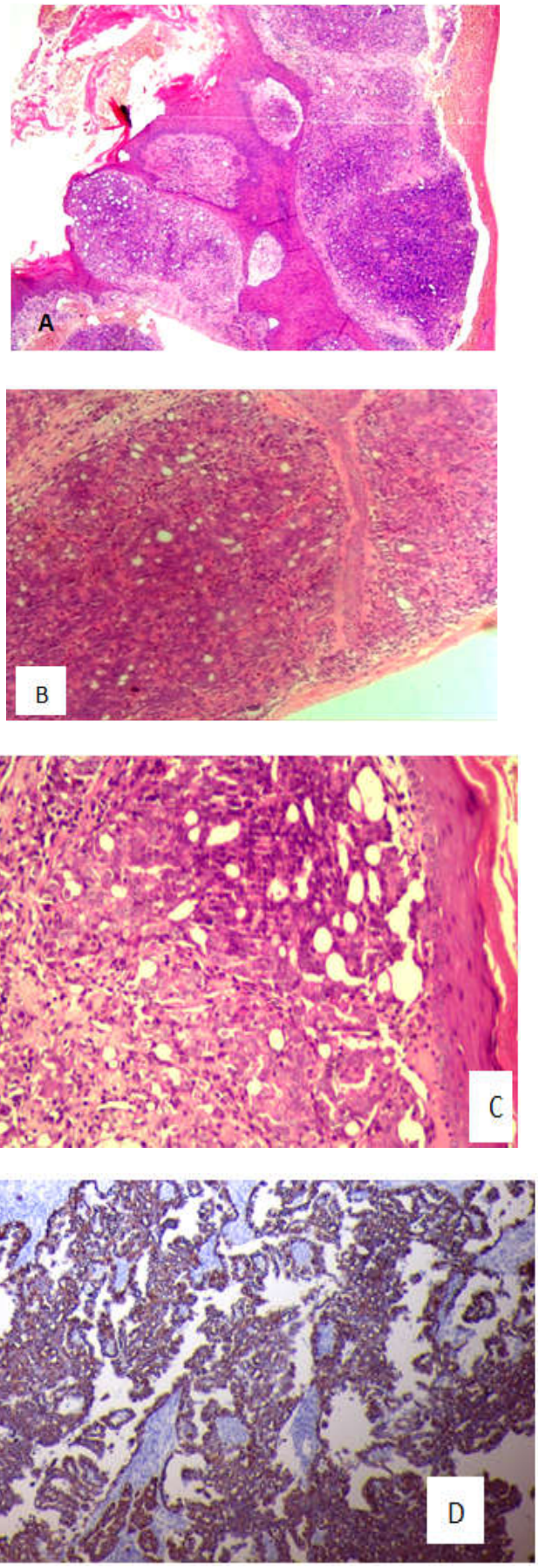

Fig: A Scanner view: Dermis shows lobules of tumor cells arranged in microglandular pattern separated by fibrous septa. Fig: B 100 X: Dermis shows lobules of tumor cells arranged in microglandular pattern separated by fibrous septa. Fig C 400 X: Showing tumor cells arranged in microglandular pattern Fig D 400 X - Immunohistochemistry for PSA stains positive

As the general condition of the patient was poor, he was further put on palliative care to enhance his quality of life. On follow up, the patient had died from the effect of the disease within 5 months.

DISCUSSION

Secondary penile lesions is not a very common phenomenon and was first described in 1870 by Eberth. Reviews of published case reports have shown that organs along the genitourinary tract, such as the prostate and bladder, are the most common primary sites (Chan et al., 1998). Literature review reveals approximately 400 published cases of secondary penile malignancies, out of which one-third accounts for orgin from prostate (Yu-Hsiang et al., 2011). Although penis has a rich and complex vascular supply interrelated to the pelvic organs penile metastasis is relatively uncommon. More so are penile metastases from prostate carcinoma (<0.3%). The most common primaries of these penile metastases originate from the pelvic organs such as the bladder, prostate, rectosigmoid, and kidney (Tu et al., 2002). Although rare, occurrence of penile metastasis of prostate cancers is one of the differential diagnoses for penile lesions. Clinical findings such as penile growth, nodule sensation over the penis, priapism, pain during erection, and dysuria are the common chief complaints in patients with penile metastases due to prostate cancer (Philip, 2003; Kotake et al., 2001). In our patient, prostate metastasis was the likely diagnoses as the patient was a known case of prostate cancer and also clinical , histopathological examination along with IHC helped in confirmation of the diagnosis. The following mechanisms have been described as causes of metastases to penis from prostate adenocarcinoma by Abehouse– 1. direct invasion, implantation 2.haematogenous dissemination and lymphatic dissemination (Abehouse, 1961). As the prognosis is extremely poor the goal of therapy is usually palliative (Wang et al., 2008). The treatment options available include local excision of the tumour, radiation therapy, bilateral orchidectomy, additional hormonal and/or chemotherapy and, partial or total amputation of the penis (Osther, 1991).

Conclusion

Metastasis of the prostate cancer presents with many different signs and symptoms and although rare but possibility of penis as the site of metastases is not unlikely and should be ruled out. Management of such patients should focus mainly on enhancing their quality of life with multitude of palliative options inspite of putting the patient through a morbid systemic/surgical therapy.

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