

Cutaneous metastasis from prostate carcinoma

An 80-year-old man with a significant history of prostatic carcinoma presented with asymptomatic nodular lesions over the lower abdomen for last 6 months. He noticed a single red-colored pea-sized nodular lesion over the central lower abdomen 6 months back. Multiple lesions developed surrounding the initial lesion and gradually extended bilaterally. Following complaints of thinning of urinary stream, dysuria, and constipation, he was diagnosed as a case of prostatic adenocarcinoma (stage 4 with involvement of inguinal lymph nodes, gleason score 7) 5 years back. Considering the age of the patient and stage of the disease, palliative treatment with transurethral resection of prostate (TURP) and orchidectomy was done.

On examination, multiple red, shiny, non-tender, firm-to-hard, dome-shaped, smooth surfaced nodules of size ranging from 0.5 to 3 cm were present over suprapubic region and extending along the bilateral inguinal ligament and to the anterior left thigh [Figure 1]. A few lesions showed surface telangiectasia, ulceration and crusting. Penile and scrotal edema was present. Inguinal and femoral



Figure 1: Multiple nodules over lower abdomen, thigh, and associated penile and scrotal edema

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lymphadenopathy was present with discrete, nontender, firm-to-hard lymph nodes of size ranging from 2–4 cm and fixed to the underlying tissues.

Serum prostate specific antigen (PSA) was 172ng/ml (normal: 0–4 ng/ml). A skin biopsy from an isolated nodule showed neoplastic cells arranged in a glandular pattern in the dermis suggesting metastatic adenocarcinoma [Figure 2]. Immunohistochemistry (IHC) for PSA was positive [Figure 3]. Based on the above mentioned findings, diagnosis of cutaneous metastasis from prostatic adenocarcinoma was made.

Discussion

Cutaneous metastasis is an uncommon entity encountered in clinical practice with a recorded frequency of 0.7–9% of all malignant metastatic disease.^[1] Interestingly, carcinoma of the prostate is the most common cancer in men, but is only rarely associated with metastases to the skin with a published incidence of 0.36%.^[2] The preferential sites of metastasis from prostate cancer are bones, lung, liver, and adrenal gland. When cutaneous metastasis occurs, it usually appears as nodular lesions involving the suprapubic area and anterior aspect of the thighs, as seen in the index case.^[3] Skin metastasis is considered as a marker of advanced disease and is associated with poor prognosis with an average survival of 6 months.^[4]

Skin lesions in patients with known primary malignancy, irrespective of the disease free interval and even at distant sites, should raise a suspicion of metastasis. In our case, presence of nodular lesions with a history of prostate cancer was highly suggestive of cutaneous metastasis from prostate carcinoma. Biopsy finding combined with IHC staining confirmed the diagnosis as

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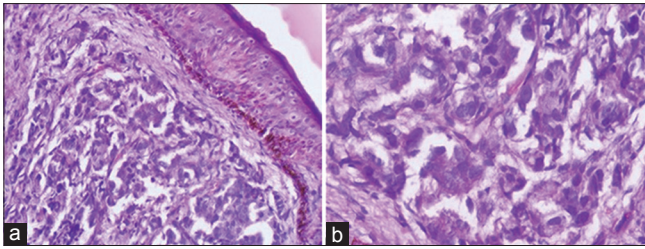


Figure 2: (a) Dermis showing neoplastic cells arranged in glandular pattern (H and E, x100); (b) neoplastic cells having round to oval nucleus with irregular nuclear membrane, prominent nucleoli, and moderate amount of eosinophilic to clear cytoplasm with indistinct cell boundaries. (H and E, x400)

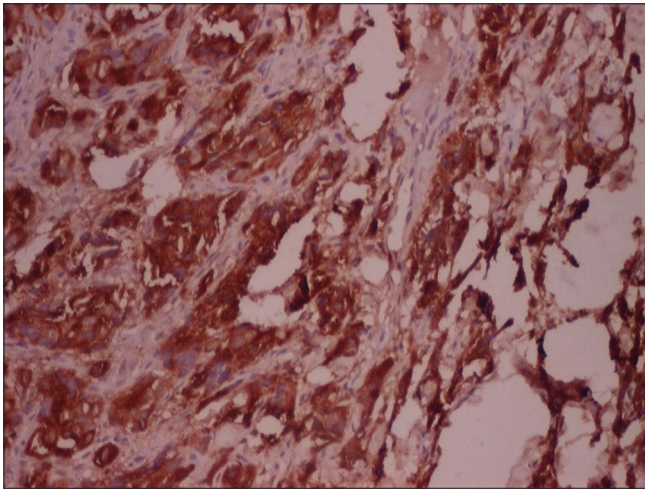


Figure 3: Immunohistochemistry positive for prostate specific antigen, a specific marker of prostate epithelial cells (x400)

PSA is a specific marker of prostate epithelial cells.^[5] The case described here is a classical presentation of cutaneous metastasis from prostatic adenocarcinoma, which is

the most common type of prostate carcinoma. Prostate carcinoma may metastasize via four mechanisms, i.e., local extension from an underlying tumor, implantation within a surgical scar, lymphatic spread, and hematogenous spread.

Less frequently, metastatic deposits involving unusual sites and variable morphology such as those resembling angiosarcoma, cellulitis, mammary paget's disease, sebaceous cyst, sister Joseph's nodule, telangiectasia, basal cell carcinoma, pyoderma, morphea, trichoepitheliomas have been described.^[6]

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Conflicts of interest

There are no conflicts of interest.

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