

Skin nodules and proptosis in a case of carcinoma urinary bladder: An unusual presentation

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ABSTRACT

Metastasis to the skin and orbit from bladder cancer is extremely rare. A 76-year-old diabetic male presented with skin nodules and proptosis of the left eye. Punch biopsy from the abdominal wall nodule showed malignant cells with perineural invasion. Immunohistochemistry showed features suggestive of metastatic urothelial carcinoma. We present this case of urothelial carcinoma of the urinary bladder presenting primarily with highly unusual nodular skin metastasis.

A 76-year diabetic male presented with firm, non-tender skin nodules on the upper abdomen, back and the scalp (above the right ear) and proptosis of the left eye for the past 3 months [Figure 1a-c]. He also had lower urinary tract symptoms without hematuria or dysuria. Routine blood investigations were normal. Punch biopsy from the abdominal wall nodule showed atypical pleomorphic cells with round nuclei, coarse chromatin, conspicuous nucleoli, and moderate amount of cytoplasm with perineural invasion. The following immunohistochemical markers were performed: Pan cytokeratin (CK), CK7, CK20, high molecular weight CK, Melan A, S100, GATA3, CDX2, CD45, and TTF1. Tumor cells were positive for pan CK, CK7, CK20, and GATA 3 and were negative for the rest, suggestive of metastasis from urothelial carcinoma [Figure 2a-d]. Contrast-enhanced computerized tomography revealed a heterogeneously enhancing polypoid growth of size 4 cm × 3 cm in the urinary bladder [Figure 1d] along with enlarged lymph nodes along the bilateral iliac vessels. The patient was started on palliative chemotherapy (cisplatin based); however, he succumbed to the complications within 3 months of the diagnosis.

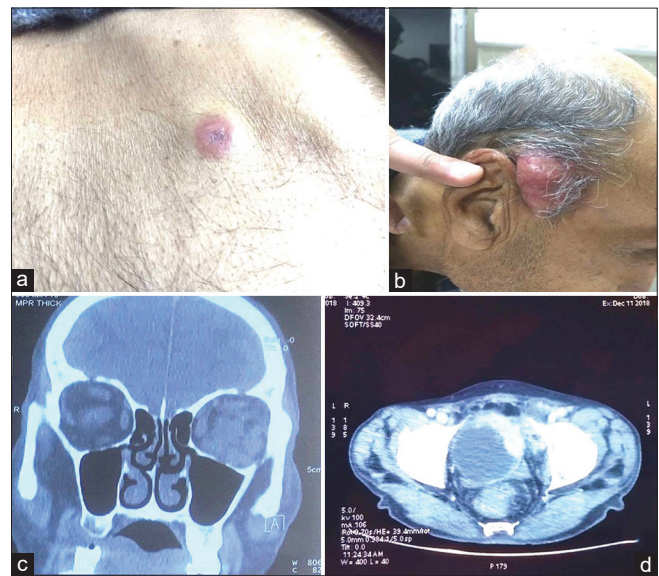


Figure 1: (a) Skin nodule on the right upper abdomen. (b) Skin nodule on the scalp above the right ear. (c) Computed tomography of the orbit showing soft tissue thickening in the left orbit (d) Axial section of contrast-enhanced computed tomography scan showing heterogeneously enhancing urinary bladder mass

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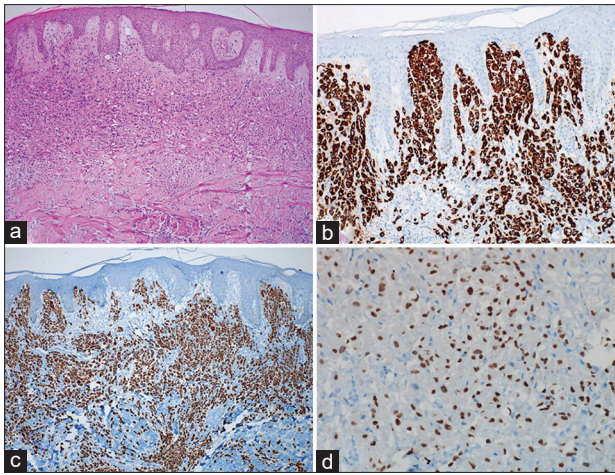


Figure 2: (a) Microscopic view of biopsied skin lesion (H and E). (b) Immunohistochemical staining showing positivity with CK7. (c) Immunohistochemical staining showing positivity with CK20. (d) Immunohistochemical staining showing positivity with GATA 3

Liver, lungs, and bones are the most frequent sites of metastasis in genitourinary malignancies.^[1] The reported incidence of cutaneous metastases from urothelial carcinoma is around 0.84%–3.6%.^[2] Orbital metastases are also uncommon, accounting for 2.5%–8.1% of all the orbital space-occupying lesions.^[3] Diminished vision, proptosis, decrease in mobility, and double vision are the most common manifestations of orbital metastases. This case highlights the unusual physical manifestations of the underlying urological malignancy. Grossly, the skin lesions vary morphologically from being nodular, as in our case, to inflammatory and fibrotic.^[4] Combined expression of CK7 and CK 20 is found in around 89% of the cases.^[5] A high index of suspicion and biopsy from the skin lesions are

required to make the diagnosis of the underlying malignancy in a patient without hematuria. These cutaneous lesions portend a poor prognosis and are resistant to treatment.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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