A neglected reddish penile patch: A wolf in sheep's clothing

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ABSTRACT

Microinvasive squamous cell carcinoma (SCC) is a known premalignant lesion of carcinoma cervix. It is also reported from other sites such as the oral cavity, larynx, and vulva. Microinvasive SCC is very rarely reported from the penis. We report the occurrence of microinvasive SCC in a long-standing erythematous lesion of glans penis in a patient, with extensive metastasis. We emphasize the need for awareness among patients and urologists about the premalignant lesions of penis and prompt treatment of such lesions to prevent possible spread of the disease.

INTRODUCTION

Microinvasive squamous cell carcinoma (SCC) is reported commonly as a premalignant lesion of cervix. However, it is reported very rarely from the penis. We report a patient with neglected erythematous penile patch who was diagnosed to have microinvasive SCC with concurrent extensive metastasis that has not been previously reported.

CASE REPORT

A 45-year-old male presented with the complaints of a small swelling on his right groin which had rapidly increased in size over the preceding 3 months. He had been prescribed some medication by a local physician after which he developed painful bullous lesions over upper part of his right thigh and left inguinal region. He came to our institute and was initially evaluated by dermatologists. A thorough examination revealed bilateral, hard, multiple, mobile, inguinal lymph nodes, and multiple small nodular lesions over the left

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half of glans penis. On further enquiry, the patient revealed that he had an erythematous patch over glans without the nodular lesions for the past 4 years. A skin biopsy from the groin was suggestive of bullous pemphigoid, and fine needle aspiration cytology of bilateral inguinal lymph nodes revealed metastatic SCC. He was subsequently referred to us for the suspicious lesion on the glans penis [Figure 1]. A wedge biopsy of the largest nodule on glans was performed which showed features of a microinvasive SCC where there was invasion of the superficial dermis and vascular tumor embolization [Figure 2a and b]. There was dominant mononuclear inflammatory cell infiltration along the deeper aspect of the tumor. The tumor cells in the superficial portion were dis-cohesive resulting in cleft formation. Following the biopsy report, contrast-enhanced computed tomography scan of chest and abdomen revealed multiple enlarged necrotic lymph nodes in bilateral external and internal iliac, obturator, and inguinal locations, the largest being in the right hemipelvis measuring 2.5 cm. Two ill-defined subpleural nodules were seen in the anterior basal segment of the right lower lobe and another in lateral basal segment of the left lower lobe. Fluorodeoxyglucose (FDG) positron emission tomography

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scan showed FDG avid left supraclavicular, abdominal, retroperitoneal, pelvic, inguinal nodes, and also multiple lytic skeletal lesions [Figure 3a-d]. A final diagnosis of microinvasive SCC penis with extensive lymph nodal and skeletal metastasis was made. He was subsequently planned for TIP (paclitaxel, ifosphamide, cisplatin)-based



Figure 1: Erythematous lesion over glans penis with multiple nodules



Figure 2: (a) Low-power photomicrograph of the biopsy showing a thickened mitotically active epidermis exhibiting anisonucleosis, dyskeratosis, dis-cohesive cells with cleft formation (solid arrow), and superficial dermal infiltration (black arrows, hematoxylin and eosin, ×150). (b) Medium-power photomicrograph showing the tumor embolus (solid arrow) and infiltrating tumor front (white arrow; H and E, ×300)



Figure 3: (a and b) Positron emission tomography scan showing lytic skeletal lesion with intense fluorodeoxyglucose uptake in the left pelvic bone (maximum standardized uptake value - 23.8, solid arrow). (c and d) Fluorodeoxyglucose positron emission tomography scan showing necrotic right external iliac lymph nodes (4.5 cm × 2.9 cm, maximum standardized uptake value - 12.9; arrow)

chemotherapy in view of extensive metastasis. He received 6 cycles of chemotherapy and is presently undergoing radiotherapy.

DISCUSSION

Carcinoma *in situ* of penis is called erythroplasia of Queyrat if it involves glans/prepuce and as Bowen's disease if it involves the penile shaft/rest of the genitalia/perineal region. Erythroplasia of Queyrat presents as red, velvety, well-marginated lesion over glans. Our patient had an erythematous lesion over the glans for approximately 4 years which was ignored and it progressed to microinvasive SCC with extensive metastases.

Microinvasive SCC is a known disease of the cervix. It is considered a premalignant lesion for SCC of the cervix. Microinvasive variant of SCC has also been reported to arise from the oral cavity, larynx, and vulva.^[1] It is biologically capable of gaining access to lymphatic or vascular channels in the lamina propria and may result in metastatic disease.^[2] Hence, early excision in the form of conization in lesions of cervix is recommended.^[3]

There is only one reported case in the literature documenting localized microinvasive SCC arising in the penis in a premalignant lichen sclerosis lesion which was cured with CO_2 laser ablation.^[4] However, our patient had microinvasive SCC of glans arising in an erythematous red-colored patch over the glans with lymphatic and hematogenous metastasis. In spite of the penile lesion being very small, he had extensive metastasis suggesting the aggressiveness of this variant. It can be postulated that the location of the lesion on the glans may be a poor prognostic factor since the lesion has easy access to the vascular sinuses of glans leading to early hematogenous spread unlike conventional SCC of penis which predominantly has lymphatic spread.

CONCLUSION

Our case highlights the need for creating awareness among patients and urologists about premalignant lesions of penis. Any suspicious lesion over the glans penis should not be ignored and needs proper evaluation and treatment to prevent progression of the disease.

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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