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Case Report

An unusual case of basal cell carcinoma in the scrotum

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ABSTRACT

Basal cell carcinoma (BCC) is one of the most common cutaneous malignancies worldwide. Reports of BCC on non-exposed areas are relatively uncommon. In our study we present the case of a male patient with BCC in the scrotum, since 3 years, successfully treated with wide local excision. Histopathological examination confirms infiltrating BCC. Our objective is to remind specialists of the possibility of scrotal BCC when encountering scrotal lesions not responding to treatment.

Keywords: Basal cell carcinoma, Scrotal basal cell carcinoma, Non melanoma skin cancer, Basal cell carcinoma in India, Scrotal mass

INTRODUCTION

Studies in India consistently report scrotal basal cell carcinoma (SCC) to be the most prevalent skin malignancy.[1,2] Exposure to sunlight is the principal cause of both basal cell carcinoma (BCC) and SCC. The incidence of SCC increases more rapidly with age and with cumulative sun exposure than does the incidence of BCC.[3] 85% of all BCCs occur in the head and neck region since ultraviolet (UV) light is the most common predisposing factor.[4] An Iranian study failed to find a significant relationship between HPV and BCC based on immunohistochemical techniques, thereby making the role of HPV in BCC controversial.[5] Incidence rate of BCC in colored skin ranged from 1.5 to 15.57/100,000 population in previous studies.[6,7] Metastatic BCC has a reported incidence of only 0.0028–0.5%.[8]

BCCs have a considerable variation in morphology, and as a consequence, a number of histopathological subtypes have been defined. Mixed patterns are quite common, and have been reported from India.[9,10]

The present study shows the rare occurrence of BCC in a non-exposed site. The etiology and incidence of scrotal BCC is unknown.

CASE REPORT

A 56-year-old male, hypertensive on treatment, presented with a proliferative scrotal growth of dimensions 5×6 cm on the left side which was gradually increasing in size over a period of 3 years. As the mass gradually increased in size and caused irritation, the patient presented to the surgeon. Physical examination revealed a tumor, mobile, with induration, 5×6 cm, with a well-defined border on his scrotum (Figures 1 and 2). No enlarged lymph nodes were found in the inguinal area.

The patient denied any history for sexually transmitted disease (STD), trauma to this area, radiotherapy and chemical exposure, exposure to sun or arsenic. No other malignancy involving skin was diagnosed.

A biopsy was done, and histopathology confirmed the presence of infiltrating basal cell carcinoma, Then, the patient was admitted for surgery. All preoperative investigations were normal.

Under spinal anesthesia, wide local excision with a margin of 2 cm of normal skin was performed (Figure 3).

Figure 1: Proliferative growth in the scrotum prior to excision as viewed from above.

Figure 2: Proliferative growth in the scrotum as viewed from the side.

Figure 3: Excised specimen.

Histological examination confirmed a basal cell carcinoma with clear margins (Figures 4a-d). The postoperative period was uneventful and the patient was advised to follow up for review.

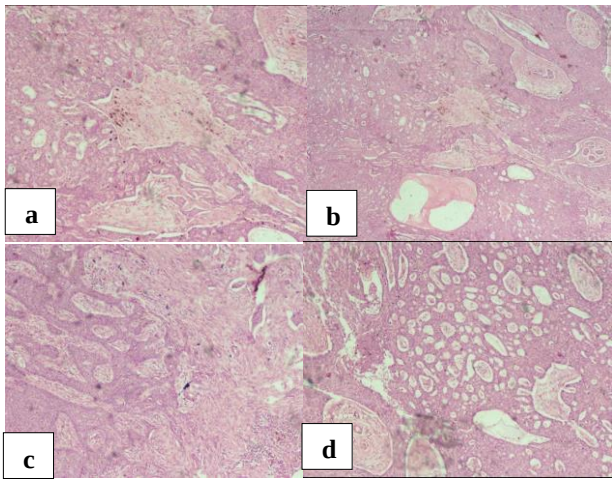

Figure 4: (a)-(d) Histopathology images.

DISCUSSION

Basal cell cancer is one of the most common cutaneous malignancies worldwide, comprising around 65-75% of all skin cancers. The percentage of skin cancer in the Asian population is around 2-4% compared to 35-40% in Caucasians and 1-2% in Black populations.

Though the overall incidence of skin cancer is low in India, the absolute patient load might be significant given the population size.[11]

The average age of patients with scrotal BCC as per previous studies 4 is 42-82 years, which our patient is well within. As with prior cases, as with prior cases of scrotal BCC, our patient did not have any known risk factor for BCC. Wider excision (2 cm) more than the recommended 4 mm margins were taken to ensure complete excision which the prior literature is in agreement with.[4] Regular follow ups have been advised to evaluate recurrence and metastasis.

The role of HPV in BCC in the scrotum remains controversial. Genetic polymorphism for certain detoxifying enzymes might play a role in BCC development.[14] Risk factors remain unclear from the cases so far.

Possible complications include bleeding, ulceration, infection apart from metastasis. Prior reviews suggest scrotal BCC to be more aggressive, with higher chance of metastasis than when located at other locations.[15] Metastasis of BCC overall is approximately 0.1%.[12] Men are twice as likely to be predisposed to metastatic BCC than women.[13] However there is insufficient data with regards to metastasis from scrotal basal cell carcinoma.

The objective of our report is to remind surgeons, urologists, dermatologists of the possibility of basal cell carcinoma in scrotal masses, especially slow growing masses not responsive to treatment.

Further studies are needed to understand the etiology, risk factors and molecular basis of scrotal BCC especially in the Indian population.

CONCLUSION

While basal cell cancer is rarer amongst pigmented individuals, a higher grade of suspicion would be prudent given the findings of our study.

Proliferative lesions in the genital area are generally considered unlikely to be BCC which is common in sun-exposed areas. However, it would still be wise to biopsy proliferative slow growing scrotal lesions before further management.

Further studies are needed to evaluate the risk factors that could lead to BCC in the genital region.

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