

Case report

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Keratoacanthoma of the glans penis – a mimicry of penile cancer

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Introduction

Keratoacanthoma usually occurs in the skin of the nose and cheeks. It does not occur in non-hair bearing areas like palms, soles or mucous surfaces since the origin of a keratoacanthoma is related to the proliferation of the pilar epithelium. Contrary to this, we came across a patient with a keratoacanthoma of the glans penis which is an area devoid of hair follicles.

Case report

A 46-year old man presented with a rapidly enlarging lump in his glans penis of 6 weeks duration. It was painless and there was no discharge from the lesion. He has had circumcision at the age of 18 years and external urethral meatotomy five years ago for meatal stenosis secondary to balanitis xerotica obliterans. On examination there was a cylindrical shaped lump on the glans penis (2.5 cm × 2.0 cm) with a central depression and the lump was covered with scaly fibrotic areas (Figure 1). There was no inguinal lymphadenopathy.



Figure 1. *Glans penis Lesion.*

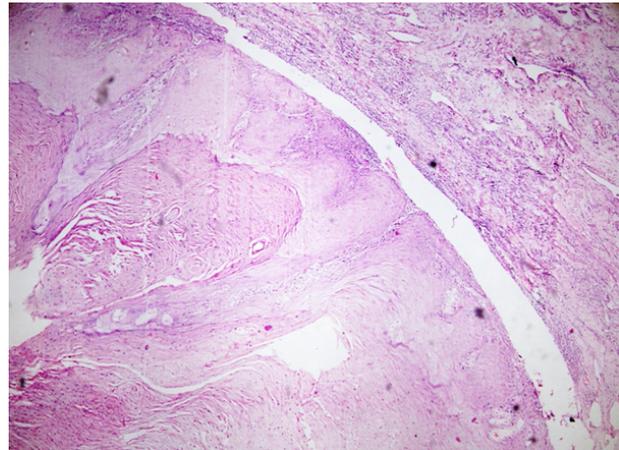


Figure 2. *Microscopic appearance.*

He had no comorbidities. Excision of the lesion was done and the histopathology showed features of a keratoacanthoma of the glans penis. Microscopically there was transition from normal epidermis to acanthosis, hyperkeratosis, and marked parakeratosis (Figure 2). There was a dense chronic inflammatory infiltrate in the upper dermis. There was no dermal invasion. One year later he has no evidence of recurrences.

Discussion

Keratoacanthoma is a benign, usually self limiting epithelial tumor. It has a close resemblance to squamous cell carcinoma both clinically and histopathologically. Solitary keratoacanthoma usually occurs around the age of 45 years.

Solitary keratoacanthomas have a typical clinical pattern. The lesion appears as a firm erythematous papule which rapidly enlarges for about 2-8 weeks to reach a size of 1-2 cm. The fully developed lesion is dome shaped and is covered by a tense, shiny normal colored to pink epidermis. The centre of the lesion is umbilicated which is filled with a thick keratinous plug. Following the phase of evolution the lesion remains quiescent for about 2-8



weeks and then begins to regress spontaneously. During this regressive phase the mass gradually shrinks, the keratinous plug is expelled and ultimately the lesion heals with a puckered scar. The total duration of the lesion is usually 2-8 months.

Keratoacanthomas occur primarily in exposed skin of central body mostly in nose and cheeks but may occur in any hair bearing site. Keratoacanthomas do not occur on palms, soles or mucous surfaces (1). However very rarely it has been reported in mucous surfaces (2,3,4). Keratoacanthoma is believed to arise from the proliferation of pillar epithelium and the evolution and regression of this tumor is believed to be related to the hair cycle. Since glans penis is devoid of hair follicles this patient's keratoacanthoma could not have arisen from a hair follicle. Whether the presence of balanitis xerotica obliterans had any bearing to the keratoacanthoma in this unusual site is not clear.

The difficulty in distinguishing a keratoacanthoma from a squamous cell carcinoma clinically warrants an excisional biopsy. Furthermore the aggressiveness of keratoacanthoma cannot be predicted and the linear scar of surgery is cosmetically better compared to the scar of spontaneous healing. The histopathologic inter-

pretation of the keratoacanthoma too is difficult and the pathologist is frequently hard pressed to decide between keratoacanthoma and squamous cell carcinoma. The usual cause of this difficulty is an inadequate biopsy which fails to include the entire breadth of the lesion including the central core.

In conclusion, keratoacanthoma should be considered in the differential diagnosis of a rapidly growing keratotic lesion with central umbilication of the glans penis. This may save a patient from unnecessary mutilating surgery of the glans penis.

References

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