

## NEVUS COMEDONICUS

### *Report of Three Cases Localized on Glans Penis*

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**Abstract.** Three cases of nevus comedonicus on glans penis are reported. The histogenesis of these lesions is discussed.

**Key words:** Penile disease/neoplasm; Naevus comedonicus

Local involvement of the glans penis with nevus comedonicus lesions constitutes a rather rare and interesting anomaly. The following is a report on three such cases.

### CASE REPORTS

#### *Case 1*

A 21-year-old male presented with multiple papules and a scar on glans penis of 5 years' duration. The scar was attributed to the presence of a previous similar papular lesion. There had been repeated infections over the years.

Examination disclosed the following: the papules were of the same colour as the surrounding skin; they were 1-2 mm in size, discrete, and topped with black heads. On pressure, a cheezy material was extruded. There were several comedones on the corona (Fig. 1). The scar was present on the

distal part of the glans and was cribriform in shape (Fig. 2). The lymph glands were not found to be enlarged. No similar (or other) skin lesions were seen on the shaft of the penis or on the scrotum.

Biopsy from the affected papular area showed the presence of a follicle-like structure filled with keratin. A keratinous cyst was also present (Fig. 3).

#### *Case 2*

A 23-year-old medical student presented with a solitary papular lesion on the glans penis of 2 months' duration. The papule was 2 mm in size, topped with a black head (Fig. 4).

Excision biopsy of the lesion showed the presence of a deep invagination of the epidermis, filled with keratin (Fig. 5).

#### *Case 3*

A 53-year-old male presented because of the presence of black lesions on his glans penis.

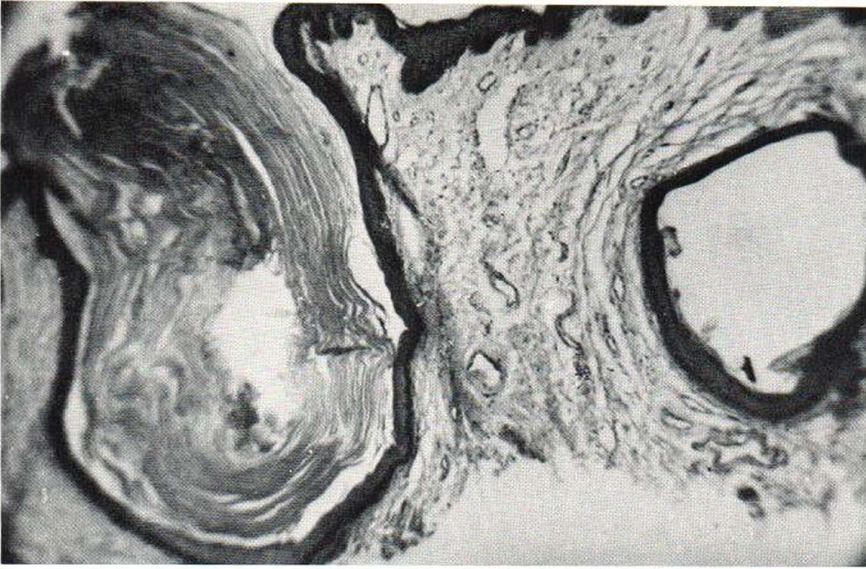
On examination, multiple comedones on the corona were seen (Fig. 6). There were no similar or other lesions on the rest of his body. No biopsy was taken.



*Fig. 1.* Patch of nevus comedonicus (case 1) showing papule on the glans penis and comedones on the corona.



*Fig. 2.* Nevus comedonicus (case 1). Cribriform scar on glans penis.



*Fig. 3.* Photomicrograph of case 1 showing follicle-like structure filled with keratin and a keratinous cyst (H & E,  $\times 80$ ).

#### COMMENT

Nevus comedonicus is a relatively rare abnormality characterized by groups of dilated follicular orifices containing dark, horny plugs (10). The area affected in nevus comedonicus (11) may be as little as 2 cm in diameter (cases 1-3) or as extensive as half of the trunk. The lesions are usually asymptomatic (cases 2 and 3) and show little tendency to extension. The main complication of nevus comedonicus (10) is the development of chronic inflammation with residual scarring (case 1).

Nevus comedonicus results (2) from a localized defect in the development of hair follicles. However, the distal two-thirds of the penis is usually (7) devoid of hair. There are few reports in the literature



*Fig. 5.* Photomicrograph of case 2 showing deep invagination in the epidermis, filled with keratin (H & E,  $\times 80$ ).



*Fig. 4.* Solitary papule topped with black head (case 2).

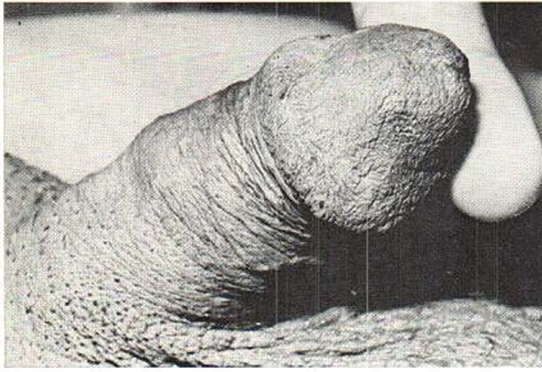


Fig. 6. Multiple comedones on the corona (case 3).

of any ectopic pilosebaceous structure on glans penis (1, 12), prepuce (5, 7, 13) or corona (6). It seems that nevus comedonicus and ectopic pilosebaceous structures arise as a part of an embryologic abnormality of the hair.

Nabia & Mehregan (10) considered that nevus comedonicus is a simple malformation of the hair follicle and not an organoid nevus. This is because of the normal appearance of interfollicular epidermis, absence of sebaceous hyperplasia and lack of ectopic apocrine glands. The fact that the distal two-thirds of the penis is devoid of hair (7) and the report of similar nevus comedonicus lesions on the palms (8, 9, 14) and soles (8, 9) supports the view that it originates from latent embryonic foci and constitutes, a haemartoma (9). Moreover, several cases of nevus comedonicus (3, 4) have been reported in association with linear basal cell nevus.

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