

A case of penile angiokeratoma, a rare subtype of genital angiokeratoma in a middle-aged male

Sir,

Genital angiokeratomas are solitary or multiple benign vascular lesions commonly occurring over the scrotum in males or the vulva in females. These lesions arise in the second or third decade of life but may present later as solitary or multiple reddish-purple to black-colored papules. PEAKER, an acronym for penile angiokeratomas, is a rare but distinctive subtype of genital angiokeratomas.

A 41-year-old male presented with small papular lesions over the penile shaft of 1 year duration. The lesions were painless and not associated with itching or bleeding. He had no history of any sexually transmitted disease.

Dermatological examination revealed multiple circumscribed tan to pink-colored papules on the dorsal aspect



Figure 1: Multiple 1–5 mm tan-to-pink-colored papules on the dorsum of the penile shaft

of the shaft of the penis ranging from 1 to 5 mm in size [Figure 1].

A diagnosis of PEAKER was made which was confirmed by a skin biopsy. Histopathological examination revealed mild hyperkeratosis and focal acanthosis of the epidermis and thin-walled ectatic blood vessels in the upper dermis [Figure 2]. A slit-lamp ophthalmological examination did not show any whorled streaks in the cornea, indicative of Fabry disease.

Although the patient did not have any symptoms, laser ablation with carbon dioxide laser was carried out as he had considerable anxiety as to the nature of lesions.

Imperial and Helwig classified angiokeratomas into five clinical types: angiokeratoma of Fordyce, angiokeratoma of Mibelli, angiokeratoma corporis diffusum (Fabry disease), angiokeratoma circumscriptum, and solitary or multiple angiokeratomas.^[1] Angiokeratoma of Fordyce or genital angiokeratoma consists of vascular lesions occurring mostly on the scrotum or vulva and rarely on the glans penis or penile shaft.^[2] The term PEAKER was introduced by Basu and Cohen and includes lesions over the glans penis, penile shaft, and foreskin.^[1,3] However, angiokeratoma lesions over the bathing trunk region including the penis in Fabry disease are not included under the ambit of the term.^[3]

Angiokeratomas are primary telangiectasias and represent dilatation of preexisting vessels without angiogenesis.^[4] A pathogenetic role of increased venous pressure due to varicocele, thrombophlebitis, or inguinal hernia in genital angiokeratomas was proposed but has not been established.^[5] PEAKER is a rare but distinctive subtype of genital, and only 54 cases have been reported to date.^[3]

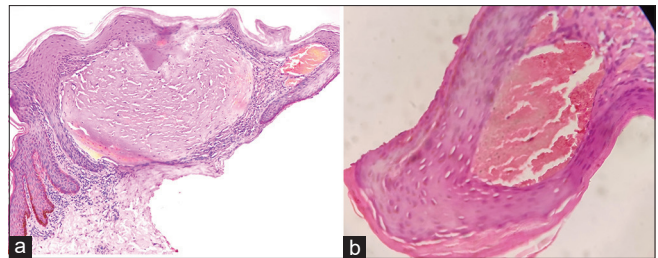


Figure 2: (a) Mild hyperkeratosis and focal acanthosis in the epidermis and thin-walled ectatic blood vessels in the upper dermis (H and E, ×10). (b) Ectatic blood vessel in the superficial dermis with overlying acanthosis and hyperkeratosis of the epidermis (H and E, ×40)

Lesions of PEAKER are distributed over the glans penis in 55.5%, penile shaft in 35%, glans penis as well as penile shaft in 4%, and foreskin in 5.5% of cases, and one-fifth of cases also have scrotal angiokeratomas.^[3] The patients may be asymptomatic or seek medical attention because of increase in size, abrupt onset of new lesions, bleeding, pain, or pruritus.

Angiokeratomas are not vascular tumors and are histologically characterized by vascular ectasia of superficial vessels in the dermis with overlying acanthosis or hyperkeratosis in the epidermis.^[4]

Genital angiokeratomas of PEAKER subtype have to be differentiated from infectious lesions such as molluscum contagiosum, verruca vulgaris, and bacillary angiomatosis; other vascular lesions such as angiokeratoma corporis diffusum, acquired capillary or cavernous hemangiomas, and pyogenic granuloma; melanocytic lesions such as Spitz nevus and melanoma; premalignant lesions such as Bowenoid papulosis; and vascular neoplasms such as Kaposi's sarcoma.^[3]

Asymptomatic cases may not require any treatment. The treatment modalities include excision, hyfrecation, curettage and cautery, radiofrequency cautery, sclerotherapy, cryotherapy, as well as laser ablation, out of which the potassium-titanyl-phosphate (KTP) laser and the 800 nm diode laser induce the least scarring.^[4]

To conclude, PEAKER is a rare variant of genital angiokeratoma in males that may be asymptomatic and managed conservatively. However, it has to be differentiated from various conditions, particularly angiokeratoma corporis diffusum. Symptomatic cases as well as those with anxiety and psychosocial distress as to the nature of the lesions may be managed by any surgical treatment modality including laser ablation.

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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Conflicts of interest

There are no conflicts of interest.

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