Fordyce Angiokeratoma

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A 52-year-old man presented with asymptomatic papules on his scrotum. The lesions had first appeared 1 year earlier. He had not sustained local trauma to the scrotum, and his medical history was unremarkable. There was no family history of similar skin lesions.

Numerous dark purple, dome-shaped papules were scattered over the scrotum. They varied in diameter from 2 to 4 mm. The physical findings were otherwise normal. Specifically, the patient had no associated varicocele or inguinal hernia. The clinical diagnosis was Fordyce angiokeratoma.

ANGIOKERATOMA OF THE SCROTUM: AN OVERVIEW

Angiokeratomas are characterized by ectasia of the superficial dermal vessels and hyperkeratosis of the overlying epidermis.¹ The dilated blood vessels are lined by a thin layer of endothelial cells.² A narrow zone of collagen separates the vascular ectasia from the overlying epidermis. Hyperkeratosis is typically mild or absent.² Acanthosis varies with the age of the lesion.²

Five types of angiokeratomas are recognized³:
• Angiokeratoma of the scrotum or vulva (Fordyce type).
• Solitary or multiple papular angiokeratoma.
• Mibelli angiokeratoma.
• Angiokeratoma circumscriptum.
• Angiokeratoma corporis diffusum.

Angiokeratoma of the scrotum was first described in 1896 by Fordyce, who reported the case of a 60-year-old man who had angiokeratoma that was associated with bilateral varicoceles.⁴ The onset is usually after the age of 40 years.⁵ The prevalence is reported to increase with age, from 0.6% in 16-year-old males to 17% in those older than 70 years.⁵ The condition is not familial.⁵

Etiology. The exact cause is unknown. Some experts regard the lesion as a degenerative disorder.⁶ Local venous hypertension might play a causative role given that the condition is more common in patients with coexisting varicocele, hydrocele, inguinal hernia, benign prostatic hypertrophy, or hemorrhoid.⁷ Agger and Osmundsen⁸ reported regression of angiokeratomas of the scrotum in a patient after surgical treatment of a coexisting varicocele. However, Orvieto and colleagues⁹ found no association between varicocele and angiokeratoma of the scrotum.

Clinical features. Fordyce angiokeratoma typically affects the scrotum.¹⁰ Occasionally, the lesions may develop on the penis.¹¹,¹² An equivalent variant affects the vulva, labia majora, and clitoris in older women.¹³,¹⁴

Fordyce angiokeratoma classically presents as multiple dark red, dome-shaped papules of 2 to 5 mm in diameter, with a discrete keratotic surface.²,¹⁰ Lesions of recent onset are red, soft, and compressible, whereas older lesions are dark blue to purple, firm, and noncompressible.³

Complications. Angiokeratoma of the scrotum can lead to diffuse redness of the scrotum if numerous surface blood vessels become dilated.⁵,¹³ Bleeding without preceding trauma is rare.¹⁶,¹⁷ The lesions can cause the patient anxiety and embarrassment.¹⁰

Differential diagnosis. Fordyce angiokeratoma must be distinguished from angiokeratoma
corporis diffusum, which is the only other angiokeratoma that can involve the genitalia. The latter is characterized by numerous tiny red papules in a symmetrical distribution over the entire body. Other conditions in the differential diagnosis are nevomelanocytic nevus and melanoma.

**Management.** The condition is benign, and treatment is usually unnecessary. Excision, electrodesiccation, or laser therapy may be considered for symptomatic lesions or for cosmesis.5,10

**References:**


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