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Penile Lymphatic Malformation Causing Urinary Obstruction

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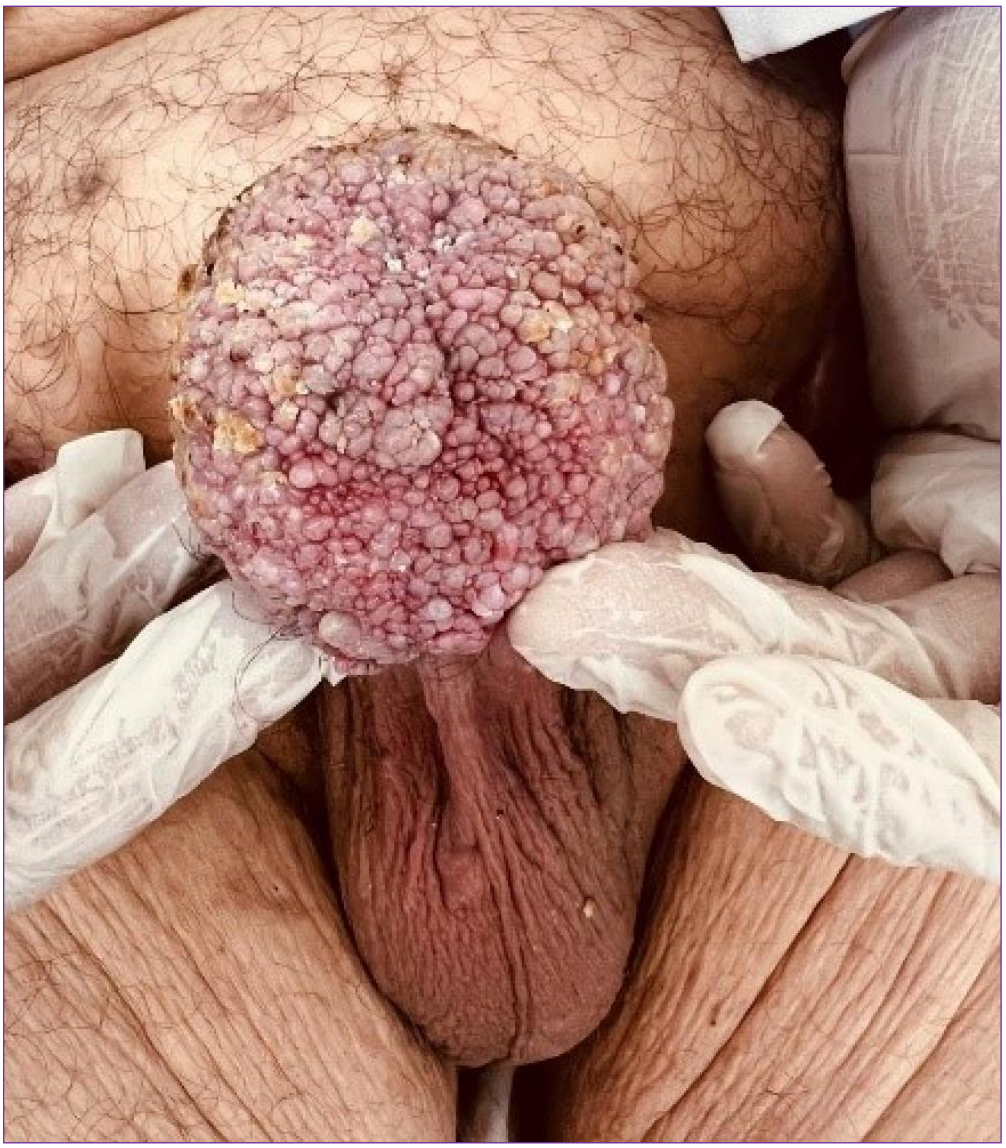

Figure 1. Multiple coalescing groups of translucent and hemorrhagic vesicular papules that resemble frogspawn, preferentially affecting the prepuce of the penis and obstructing and obscuring the orifice of the urethra.

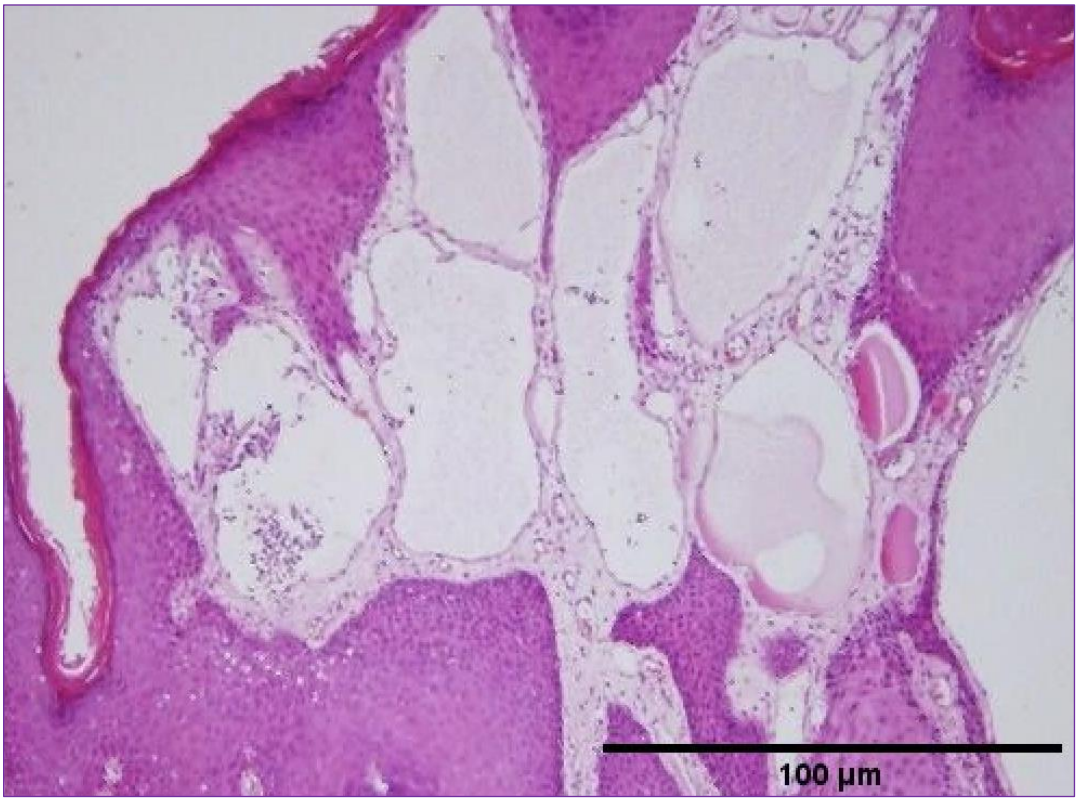

Figure 2. Cutaneous punch biopsy revealing subepidermal dilated lymphatic spaces, some of which are filled with proteinaceous material (lymph). Hematoxylin and eosin stain, 100 X.

A 39-year-old married male from Uzbekistan presented with recent, repeated difficulties passing urine. He had a history of asymptomatic and progressive lesions on the penis for the past 10 years. The patient also reported occasional bleeding from these lesions and erectile dysfunction during sexual intercourse. The patient had not had any previous chronic medical problems and no family history of similar symptoms.

The general examination was normal, and there were no signs of any disorders that caused vascular blockage. A local examination revealed multiple coalescing groups of translucent and hemorrhagic vesicular papules that resembled frogspawn, preferentially affecting the prepuce of the penis and obstructing and obscuring the orifice of the urethra (**Figure 1**). The scrotum and both testicles were normal.

We suspected this case to be cutaneous lymphangiomatosis. A punch skin biopsy confirmed this diagnosis (**Figure 2**). By ultrasonography and magnetic resonance imaging (MRI) of the abdomen and pelvis, there was no pathology other than lymphatic malformation of the penis.

A urological evaluation and urethroscopy confirmed the urine retention to have been caused by blockage of the urethral orifice by the lymphangiomas. This case is currently being managed by a team, comprising a urologist, dermatologist, and plastic surgeon.

Genital lymphangiomatosis is not a common disorder. It may arise as a primary condition due to malformation in the lymph vessels or as a secondary condition that is effected by blockage of the lymph vessels from several causes.[1-5] Primary genital lymphangiomatosis (lymphatic malformation)

can also be precipitated by several factors, is asymptomatic, and appears to be more common than the secondary form.

Penile lymphangiomatosis has been recognized and known since 1828, and in their review, Macki et al. identified 30 cases of penile lymphangiomas in the English literature between 1947 and March 30, 2018.[1] Usually presenting later in life, penile lymphangiomas commonly reside on the coronal sulcus or shaft of penis. Precipitating factors include existing genetic disorders, such as Noonan syndrome; trauma (e.g., injury to the penis from zipper entrapment or after circumcision); radiotherapy; infections; scleroderma; severe phimosis; and sexually transmitted disease.

The diagnosis of penile lymphangiomatosis is established by histopathological examination. However, dermoscopy, lymphangiography, ultrasonography, and MRI can be used as ancillary diagnostic tools. Its diagnosis can be confused with venereal disorders.[6] Complications include bleeding, drainage of lymph (chylorrhea), recurrent infection, sexual dysfunction, and urinary retention, as in our case.

Treatment options for penile lymphangiomatosis range from simple “wait and watch” to electrofulguration, laser ablation, and surgical excision, each of which is associated with a favorable prognosis.[1-7]

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