

**Egyptian Dermatology Online Journal**  
**Volume 10 Number 2****A case of Pyogenic Granuloma at an Unusual Location**

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**Egyptian Dermatology Online Journal 10 (2): 12, December 2014**

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**Abstract**

Pyogenic granulomas (PG) are common, acquired, benign vascular lesions of the skin and mucous membranes that can develop both spontaneously and traumatically. Pyogenic Granuloma more commonly involves the gingiva (75% of all the cases). An extra-gingival occurrence of pyogenic granuloma is rare.

We present an unique case of a male patient aged 24 years affected by pyogenic granuloma of urethral meatus. Although penile pyogenic granulomas have previously been observed over glans penis, prepuce and shaft of penis, there are no reports affecting meatus.

**Introduction**

Pyogenic granuloma, first described by Hullihen, is a benign, non-neoplastic, mucocutaneous lesion. The name 'pyogenic granuloma' is a misnomer, since this condition is not associated with pus and as it does not represent a granuloma histologically. PG is thought to represent an exuberant tissue response to a local irritation or trauma.[1-2]

**Case report**

A 24 years old male patient reported to our department with the complaints of a growth over the glans penis near meatus of six months duration, sudden in onset, had gradually increased to the present size and was associated with spotting.

The unmarried patient denied genital trauma and history of sexual intercourse during the preceding 6 months. The physical examination was within normal limits. No lymphadenopathy was observed. On systemic examination no abnormality was revealed and clinically there was no evidence of sexually transmitted diseases. Investigations of complete blood counts, ESR, chest radiography, HIV, VDRL and Mantoux test were within normal limits.

The clinical examination revealed a small, erythematous papule over the glans penis at the meatus, measuring about 0.5 cm in diameter (**Fig 1,2**).The lesion was soft in consistency and non tender, with minimal bleeding.



**Fig 1**

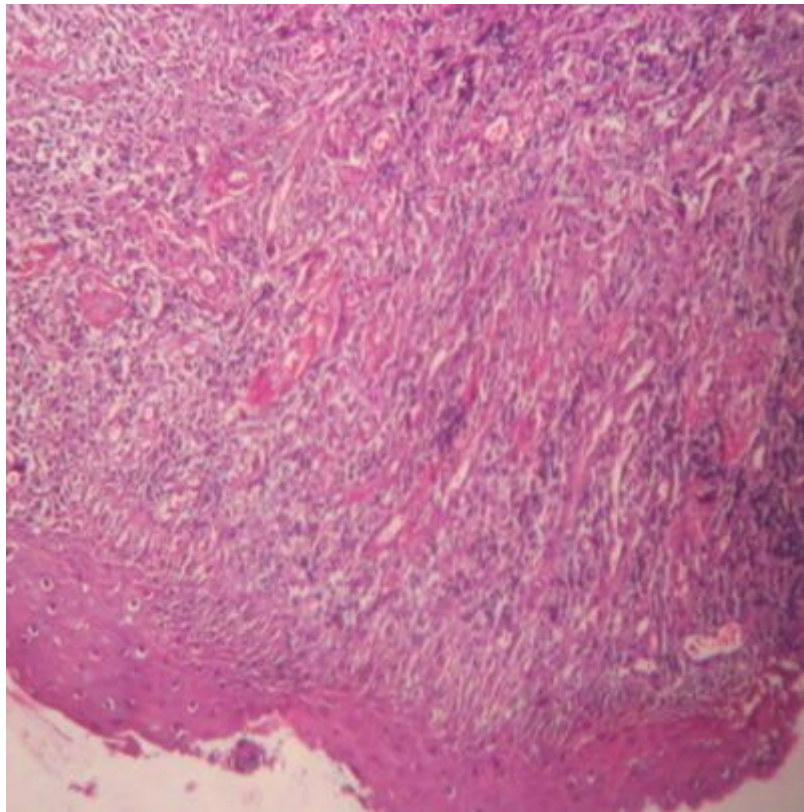


**Fig 2**

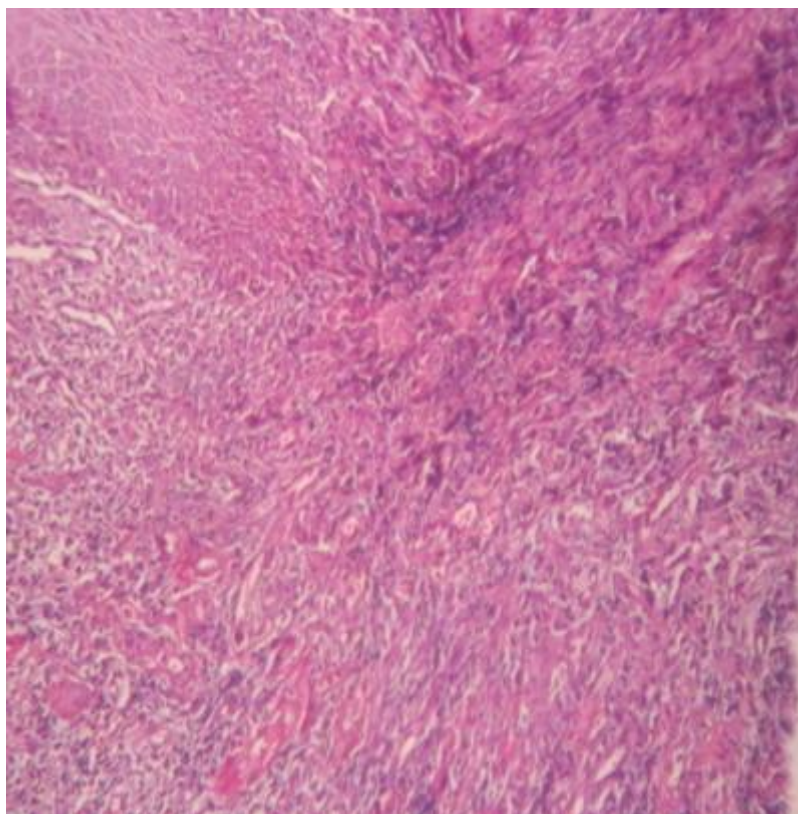
A differential diagnosis of pyogenic granuloma, Cherry angioma, urethral caruncle angiokeratoma, genital wart and pyoderma gangrenosum was considered.

Because of its small size, an excisional biopsy was done and submitted for histological examination.

The histopathologic examination showed an intact epidermis. The sub epithelial region showed many thin walled varying sized capillaries, few dilated and filled with RBC's. The intervening stroma showed infiltrate predominately of neutrophils, occasional areas showing hemosiderin deposits. **(Fig 3,4)**



**Fig 3**

**Fig 4**

Histology confirmed the diagnosis of pyogenic granuloma.

## Discussion

Pyogenic Granuloma is a vascular nodule that develops rapidly, often at the site of a recent injury, and is composed of a lobular proliferation of capillaries in a loose stroma.[3]

In 1844, Hullihen described the first case of pyogenic granuloma. In 1897 Pyogenic granuloma in man was described as "botryomycosis hominis." Hartzell in 1904 is credited with giving the current term of "pyogenic granuloma" or "granuloma pyogenicum." It was also called as Crocker and Hartzell's disease. Angelopoulos histologically described it as "hemangiomatous granuloma" due to the presence of numerous blood vessels and the inflammatory nature of the lesion.[1]

Gingiva is the predominant site followed by the lips and the hard plate. Oral pyogenic granuloma is more common in females, in second and fifth decades due to the vascular effects of the female hormones.[1]

Clinically, pyogenic granulomas begin as small red papules that rapidly increase in size ranging from a few millimeters to several centimeters. Pyogenic granulomas may have an initial period of rapid growth, followed by stabilization and occasionally regression.[4]

We present here an unmarried male patient aged 24yrs, presented with a small erythematous papule with sessile base over meatus of glans penis with occasional spotting. He denied history of genital

trauma.

Clinically we considered a differential diagnosis of pyogenic granuloma, urethral prolapse, cherry angioma, urethral caruncle, angiokeratoma, genital warts and pyoderma gangrenosum of penis.[5-6]

The histological examination showed an intact epidermis. The sub epithelial region showed many thin walled varying sized capillaries, few dilated and filled with RBC's. The intervening stroma is showing infiltrate predominately by neutrophils, occasional areas showing hemosiderin deposits.

The histopathology of pyogenic granuloma shows a angiomatous tissue with endothelial cell proliferation, inflammatory cell infiltrate is seen in the form of few neutrophils, lymphocytes and plasma cells covered by parakeratinized epithelium[2]

A literature scan revealed a few cases of pyogenic granuloma involving the shaft of penis[6] and prepuce of glans penis [7,8,9]. Literature search (using Medline) has revealed no previous reports of pyogenic granuloma involving the meatus of glans penis. This is the first case report of pyogenic granuloma involving the urethral meatus.

## Conclusion

Pyogenic granuloma is a common lesion of the skin and oral cavity, especially the gingiva. This case report emphasizes that the diagnosis of a penile pyogenic granuloma is complex and leads the dermatologist to consider distinct lesions with its myriad etiologies, clinical features, histological presentations and treatment modalities. We call attention to the uncommon location of pyogenic granuloma over meatus. Surgical excision is a safe method for diagnosis and treatment of pyogenic granuloma over meatus of glans penis.

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