Pyoderma Gangrenosum of the Penis: Case Report

Penil Piyoderma Gangrenozum

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ABSTRACT Pyoderma gangrenosum (PG) is an idiopathic, inflammatory, ulcerative disease of undetermined cause. It is rare for PG to affect the penis. Soto reported the first case in 1970, and there have been less than a dozen reports since then. Diagnosis of penile PG may be delayed as there are more common causes of penile ulceration such as malignancy, infection, or artifact to be excluded. Approximately 50% of cases of PG are associated with systemic disease. Early recognition is critical to avoid unnecessary or potentially harmful interventions. Although it is rare for PG to affect the penis, PG should also be considered in the differantial diagnosis of the penile ulceration.

Key Words: Pyoderma gangrenosum; penile diseases

ÖZET Piyoderma gangrenozum (PG) nedeni bilinmeyen, idiyopatik, inflamatuar, ülseratif bir hastalıktır. PG'nin penisi etkilemesi nadirdir. Soto ilk vakayı 1970 yılında yayınlamış ve o zamandan sonra az sayıda vaka bildirilmiştir. Penil PG tanısı malignite, enfeksiyon veya artefakt gibi diğer penil ülserasyon yapan nedenlerle karışabileceği için gecikebilir. PG vakalarının yaklaşık %50'si sistemik hastalıklarla ilişkilidir. Erken tanı gereksiz veya potansiyel zararlı girişimlerden kaçınmak için kritiktir. Her ne kadar PG'nin penisi etkilemesi nadirse de, PG penil ülserasyon ayırıcı tanısında mutlaka göz önünde bulundurulmalıdır.

Anahtar Kelimeler: Piyoderma gangrenozum; penis hastalıkları

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Pyoderma gangrenosum (PG) is an idiopathic, inflammatory, ulcerative disease of undetermined cause.[1-3] It is rare for PG to affect the penis. Soto[1] reported the first case in 1970, and there have been less than a dozen reports since then. Approximately 50% of cases of PG are associated with systemic disease.[2] PG is a disease entity diagnosed when other causes of purulent ulcerations, such as sexually transmitted diseases, multi-system disease, necrotizing faciitis, cutaneous metastatic Crohn's disease, deep fungal infection, pemphigus vegetans, Fournier's gangrene, neoplastic conditions, erosive lichen planus, trauma and factitious damage have been excluded. Early recognition is critical to avoid unnecessary or potentially harmful interventions.[4]

CASE REPORT

A previously healthy, circumcised 42 year-old-man presented with a severely painful ulceration in the distal penile shaft and glans of the penis that developed about 4 weeks earlier. The lesion was characterized by an irregular margin, necrotic crusts and dirty irregular base with oozing (Figure 1). He denied preceding trauma and did not have extramarital sex. There were painful purulent ulcerations on the distal dorsal penile shaft and glans of the penis. There was neither inguinal nor femoral adenopathy and physical examination was otherwise normal. Through evaluation of sexually transmitted diseases gave no abnormal findings. Investigations had ruled out malignancy and infection, and factitious damage was deemed unlikely. Moreover, the following investigations were normal and revealed no evidence of any associated disease: complete blood counts, renal and liver functions, rheumatoid factor, antinuclear antibodies, antineutrophilic cytoplasmic antibodies, anti-dsDNA, colonoscopy, chest radiography and magnetic resonance imaging of the pelvis. Repeated swabs grew no significant organisms. Findings from histological examination showed a central area of ulceration and chronic inflammation. There was no evidence of malignancy. Having found no evidence of neoplasia or infection, it was thought that the most likely cause of the ulceration was pyoderma gangrenosum (PG).

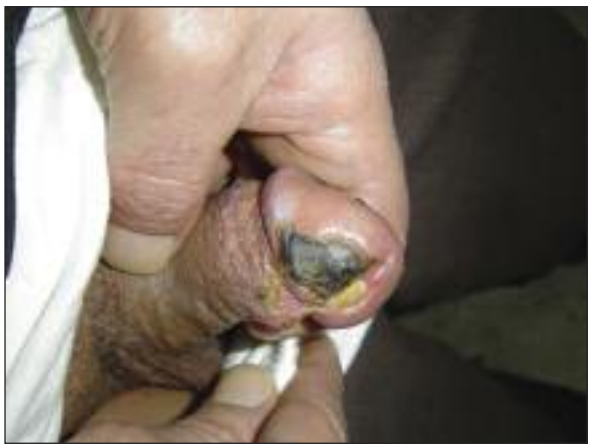

FIGURE 1: Purulent ulcerations and necrotic crusts on the distal dorsal penile shaft and glans of the penis.

He was commenced on therapy with prednisolone 60 mg daily, and potassium permanganate baths. Systemic erythromycin and metronidazole were also prescribed. The necrotic crusts were debridated. The treatment was well tolerated, and improvement was sustained such that prednisolone therapy could be gradually discontinued. The purulent ulceration resolved, although, the degree of tissue destruction remained unchanged. The floor of the ulcer re-epithelized and plastic surgical repair was performed later. The necrotic tissue was excised and glans reattached to where the shaft tissue appeared healthy.

During the perioperative period he was recommenced on prednisolone 40 mg daily, with the intention of preventing pathergy at the site of surgery. Prednisolone was reduced over several weeks without recurrence of the ulceration. No recurrence of pyoderma gangrenosum was observed during 6 months after surgery. The patient was lost for follow-up.

DISCUSSION

It is rare for PG to affect the penis. Soto[1] reported the first case in 1970, and there have been less than a dozen reports since then. Diagnosis of penile PG may be delayed as there are more common causes of penile ulceration such as malignancy, infection, or artifact to be excluded.[2] PG is a diagnosis made when other causes of purulent ulceration have been excluded.[3] In our patient, investigations had ruled out malignancy, infection, sexually transmitted disease, and factitious damage. Besides, there was no evidence of neoplasia or infection in the histological examination. We therefore propose that the patient had PG.

Approximately 50% of cases of PG are associated with systemic disease,[2,4] but there was no evidence of this in our case. Two reported cases of penile PG were associated with systemic chronic lymphocytic leukemia[5] and ulcerative colitis[6] respectively, but the others occurred without any associated diseases.

Early recognition is critical to avoid unnecessary or potentially harmful interventions. The extension of lesions in response to trauma or surgical

debridement, which is termed pathergy, is a hallmark of PG.[4,7,8]

Local wound care is essential to ensuring a suitable wound environment for healing, and prevention and treatment of secondary bacterial infection.[9] Therapeutic options for penile PG include topical or systemic corticosteroids[2,4] other forms of immunosuppression may be concidered, once not outweighed by significant adverse effects.[2,3] Since the ulcerations were extremely severe, the patient warranted medical therapy and subsequent surgical repair, he responded to the treatment without recurrence during the 6- mounth period after surgery, and then lost for follow-up.

Although it is rare for PG to affect the penis, PG should also be considered in the differantial diagnosis of the penile ulceration, and early recognition is critical to avoid unnecessary or potentially harmful interventions.

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