Rare presentation of penile abscess after 15 years of penile silicone injection

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ABSTRACT

Penile augmentation with silicone is utilized to achieve higher self-esteem and penile shape satisfaction in men concerned about their penile size. This intervention may be complicated with a penile abscess, which is most caused by Staphylococcus aureus. The optimal management options are abscess drainage, removal of the subcutaneous nodule, and excision of the skin with two-stage penile reconstructions. Our case is a rare presentation of penile abscess after 15 years of silicone injection.

1. Introduction

Penile augmentation with silicone is utilized to achieve higher self-esteem and penile shape satisfaction in men concerned about their penile size. This intervention may be complicated with a penile abscess, which is most caused by Staphylococcus aureus. A penile abscess is a clinical diagnosis confirmed by imaging studies such as magnetic resonance imaging (MRI), computed tomography (CT), and ultrasound. The suggested management options are abscess drainage, removal of the subcutaneous nodule, and excision of the skin with two-stage penile reconstructions. Our case is a rare presentation of penile abscess after 15 years of silicone injection.

2. Case presentation

A 37-year-old male patient is not known to have any medical problem presented to the emergency department with a penile shaft swelling and fever for one day. The swelling began the early morning after waking up and was localized at the penis’ dorsum with mild pain. Over the next few hours, the swelling enlarged progressively with an increase in the problem’s severity, associated with fever. He was able to void with no lower urinary tract symptoms, dysuria, or hematuria. He denied any trauma, and the last sexual intercourse was three days ago and was not followed by rapid detumescence, pain, or pooping. The patient denied any drug abuse or intracorporeal injection. The patient denied a history of diabetes or history of a sexually transmitted disease. He gave a history of a penile injection of silicone fifteen years ago by a health care provider with good cosmetic results.

Upon examination, the patient was febrile (38.7°C), pulse was 104/min, blood pressure was 136/76 mmHg. Genital examinations revealed a circumcised penis with a diffuse swelling at the dorsum of the penile shaft with erythema (Fig. 1). There was no ecchymosis. It was in the dorsum of the penile shaft and not extended ventrally. It was tender and fluctuating. There was no pus drainage or skin necrosis over the penile shaft of the scrotal wall. Both testicles were palpable, average size, and non-tender. Laboratory investigations revealed WBC: 16, Hb: 13 and Procalcitonin: 0.24. Otherwise, normal electrolyte, renal function test, and urinalysis. With this unusual presentation, ultrasound was performed to rule out a penile fracture. The ultrasound study showed a 5 × 5 cm collection at the dorsum of the penis with hyperechoic particles seen within the collection to confirm the diagnosis. The tunica albuginea of the corpora cavernosa was intact (Fig. 2).

The patient underwent surgical drainage of the penile abscess by a circumcision incision with complete degloving of the penile skin. The pus was sent for and sensitivity, which revealed Streptococcus agalactiae (Strep. group B). The skin was closed by absorbable sutures; a drain was inserted. Postoperatively, the patient was placed on IV piperacillin with tazobactam and daily dressings for five days. The patient was then discharged home after the removal of the drain on oral antibiotics.

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3. Discussion

Achieving a bigger penile size is a concern for many men to ask for medical opinion. This concern was noticed in patients with body dysmorphic disorder and patients with penile size anxiety with a higher association in the former group. One available option is penile augmentation by silicone injection aiming to increase the penile size.

Silicone was used in the medical field for years because of its stability and minor body reaction or rejection. The injectable form of silicone has been used for penile augmentation with high satisfaction levels in self-esteem improvement. However, it’s still considered an experimental surgery by the Sexual Medicine Society of North America because of unknown safety and efficacy. Many documented complications were reported after silicone injections such as abscess formation, subcutaneous penile and scrotal nodules, buried penis, silicone migration, granulomatous reaction, penile siliconoma, and penile skin gangrene.

A penile abscess can be due to an injectable bulking agent, amphetamine injection, cavernosography, priapism or penile prosthesis. Diabetes mellitus, dental caries, and sexually transmitted diseases are considered as predisposing conditions for penile abscess. Our case presented after 15 years of silicone injection, which is a rare presentation. *Staphylococcus aureus* and Streptococci were the most frequently implicated bacteria in one of the reviews, which was also seen in our case. Imaging modalities such as ultrasound, computerized tomography (CT) scan or Magnetic resonance imaging (MRI) can be used to confirm suspicious conditions and to drain the abscess by ultrasound or CT scan. The management options of penile abscess varied from incision and drainage, excision of the nodules to skin excision with two-stage penile reconstructions using scrotal flap. Furr et al. suggested that primary closure is preferred whenever feasible. Further long-term sequelae were seen in these patients after the primary intervention, including penile curvature, decreased sensation, penile shortening, and skin scarring. However, these complications do not cause severe erectile dysfunction and can be corrected surgically. Penile curvature might be avoided if imaging-guided drainage of the abscess was used.

4. Conclusion

Penile abscess after silicone injection is a known complication, commonly caused by *Staphylococcus aureus* and Streptococci and...
predisposed by diabetes and sexually transmitted disease. We presented a rare case of late presentation of penile abscess after silicone injection.

Abbreviations

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