SEXUAL MEDICINE CASE REPORT

Recurrent Penile Fracture—Case Report and Alternative Surgical Approach

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ABSTRACT

Introduction: Penile refracture is an exceedingly rare event, with very few published studies. To the best of our knowledge, this is the first documented case in the literature of penile fracture with 3 same-site recurrences.

Aims: To describe the case of a 25-year-old Caucasian man with recurrent penile fracture ultimately treated with resuture and patch reinforcement.

Methods: Patient history (clinical and surgical) and literature review.

Results: After the 3rd same-site recurrence, patch reinforcement over the sutured area was performed. The patient had an uneventful recovery and no recurrences to date.

Conclusion: There is no evidence indicating the superiority of non-absorbable sutures. Bovine pericardium reinforcement over the sutured area was used to minimize the chance of another recurrence. More studies are necessary to investigate its safety and efficacy in this scenario. **Nascimento B, Guglielmetti GB, Miranda EP, et al. Recurrent Penile Fracture—Case Report and Alternative Surgical Approach. Sex Med 2018;X:XX–XX.**

Key Words: Penile Fracture; Recurrent Penile Fracture; Penis; Surgical Intervention; Genitourinary Trauma

INTRODUCTION

Penile fracture (PF) is a rare event, with a reported annual incidence rate of 0.29 to 1.36 per 100,000 men.[1] Classic clinical features are hearing a popping sound after buckling of the penile shaft during sexual intercourse, rapid formation of penile hematoma, and loss of erection.[2] The most accepted treatment is surgical exploration, hematoma evacuation, and suture of the tunical defect, with studies showing up to 98.6% of adequate erections after long-term follow-up.[2,3]

Recurrent PF is an exceedingly rare event, with very few reports in the literature. Recurrences can occur at different locations, including contralaterally,[4,5] ipisilaterally,[6,7] and at the same site.[8,9] This is, to the best of our knowledge, the 1st report of recurrent PF with 3 same-site recurrences. We discuss clinical features and surgical management.

CASE REPORT

A 25-year-old Caucasian man presented to the emergency room complaining of pain and hematoma after sexual intercourse with his partner 7 days previously. His surgical history was notable for correction of ventral congenital penile curvature 6 years previously, when he was 19 years old. Surgery was performed by a different team; the patient did not know the surgical technique and had no surgical report of the procedure. The patient reported no residual curvature after surgery but developed persistent dorsal penile pain that was managed with corticosteroid injection at the plication site 1 year later, performed by the same team. The patient also admitted regular cocaine abuse. Physical examination showed a penile hematoma at the right side of the mid-shaft. Magnetic resonance imaging (MRI) of the penis depicted a 4-mm tear on the lateral and dorsal aspect of the right corpus cavernosum (CC). Penile exploration was done through a sub-coronal incision, and evacuation of the hematoma and repair of the defect were performed using absorbable suture (polyglactin 2-0). His early postoperative course was uneventful, and he was

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discharged on the 1st postoperative day with instructions to maintain sexual abstinence for 1 month.

The patient failed to follow instructions and returned 13 days later reporting pain and hematoma after sexual stimulation with his girlfriend during cocaine use. A larger mid-shaft hematoma on the right aspect of the penis was noted and MRI visualized a 10-mm tunical defect on the site of the previous surgery. Penile re-exploration was performed and a new repair of the tear was done, this time with non-absorbable suture (polypropylene 2-0). His postoperative course was uneventful, and the patient received strict instruction for sexual abstinence for at least 30 days. During early follow-up, the patient had no complaints of pain, erectile dysfunction, or penile curvature and was allowed to resume sexual activity.

He presented 7 months later, after traumatic sexual intercourse, with similar symptoms, for physical examination. PF was confirmed with MRI of the penis, showing a 15-mm albuginea tear on the site of previous surgeries. Penile exploration with the same incision confirmed the location of fracture and once again the defect was repaired with polypropylene 2-0. This time the patient was instructed abstain from sexual activity for 30 days and to avoid vigorous sexual intercourse because of his increased risk of recurrent PF.

Unfortunately, a similar clinical presentation was observed 4 months later after sexual activity without intercourse. Penile exploration confirmed the same location of injury and for the 3rd time the tear was repaired with polypropylene 2-0. Considering the recurrence seen in this patient, reinforcement of the sutured site was performed with a 2.5- × 2.5-cm bovine pericardium patch above the site of all previous fractures (Figure 1). His postoperative course was uneventful, with no signs of infection, and he was discharged on the 1st postoperative day. All surgeries were performed by 2 surgeons with expertise in penile surgery (J.C. and G.B.G.) and written informed consent was obtained. At his most recent follow-up, 6 months after the last procedure, the patient had resumed sexual activity with no complaints of erectile dysfunction and no signs of recurrence. The patient reported a slight right curvature of 12° at self-measurement at home with a goniometer during a rigid erection. However, the patient denied any negative impact on his penetration ability or his overall satisfaction with his sex life.

DISCUSSION

Refracture (RF) is an exceedingly rare event and reasons for this unfortunate outcome should be analyzed to prevent similar cases.

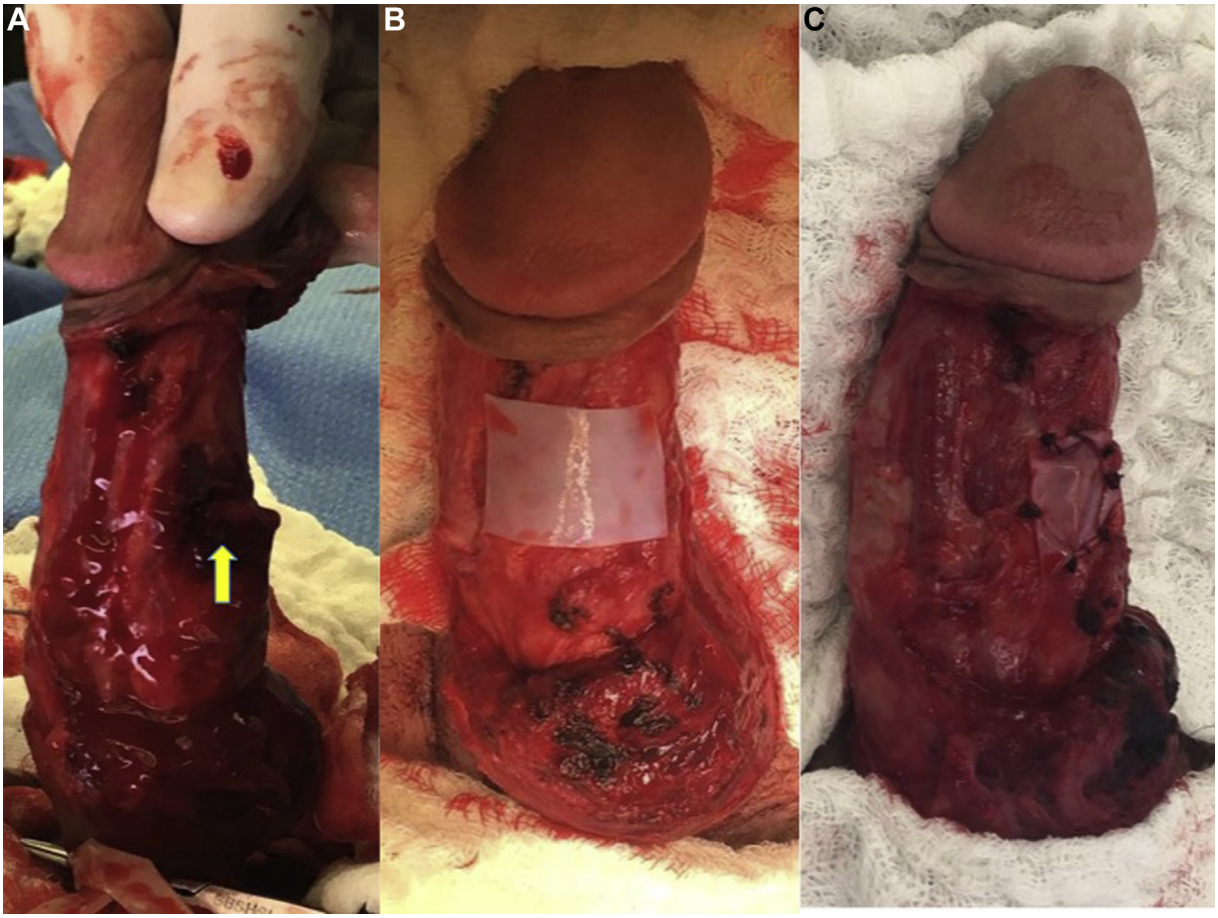

Figure 1. Panel A shows defect seen at 3rd recurrence. Panel B shows a calculation of the area to be covered with a bovine pericardium patch. Panel C shows final aspect after patch reinforcement.