Inflammation and infection

A rare case of a multi-focal corpora cavernosal abscess

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Introduction

Review of the current literature suggests that an abscess originating in the corpus cavernosum is rare, with a paucity of reported cases in the literature. Upon reviewing the evidence, there have been reported cases of cavernosal abscess following a local nidus for infection including trauma or local injection, however few have reported a spontaneous abscess formation within the penile corporal cavernosal region. Here, we present the case of a 49-year-old previously fit and healthy gentleman, with a spontaneous bilateral penile cavernosal abscess. Magnetic resonance (MR) imaging confirmed the diagnosis of an extensive abscess within the corpora cavernosa bilaterally. Subsequent incision and drainage of the abscess was performed followed by a 5-week course of antibiotics. Microscopy & culture demonstrated Streptococcus Anginosus in both blood cultures and wound pus swabs.

Case report

A 49-year-old gentleman, known to be previously fit and well, presented to the emergency department with a one-week history of a progressively worsening swollen and painful scrotum and penis. Of note, no irritative urinary symptoms were noted. He was diagnosed with an infective episode of balanitis one month prior in the emergency department and was subsequently discharged with a course of antibiotics. Microscopy & culture demonstrated Streptococcus Anginosus in both blood cultures and wound pus swabs. Of note, lengthy critical care input was also required for inotropic support secondary to significant sepsis.

Discussion

There is a paucity of reported cases documenting abscesses of the corpus cavernosum. Upon reviewing the literature, the most common presentation of a corpus cavernosum abscess is penile pain and swelling.1 Many cases are spontaneous.1 Some reported cases are associated with priapism2, intracavernous injection therapy with papaverine or alprostadil,1,3 trauma1,2 or foreign bodies such as penile prosthesis.1

There are case reports of secondary corpus cavernosum abscess developed from an intra-abdominal abscess. Staphylococcus aureus is the most...
common causative organism amongst reported cases, followed by Streptococci, Fusibacteria and Bacteroides.  

The Streptococcus milleri group (SMG) comprising of S. anginosus, S. constellatus and S. intermedius are commonly found as part of the normal oropharynx and gastrointestinal tract flora. However, they are commonly associated with abscess formation. The mainstay of management in SMG infection is for incision and drainage of the primary abscess whilst commencing on appropriate antibiotic therapy. 

To our knowledge, our case is one of the only few reported cases of cavernosal abscess secondary to Streptococcus anginosus infection in a previously fit and healthy individual. In our patient, clinical diagnosis was challenging even with the aid of ultrasonography, eventually
leading to the use of MRI for a definitive diagnosis of the abscess. He was promptly brought to theatre for abscess drainage and started on empirical antibiotics. However, due to the severity of the condition, he required further wound washouts. We understand the potential of post-operative complications involved with drainage of a penile abscess, such as penile deviation due to secondary fibrosis, erectile dysfunction or recurrence of abscess. However, due to our patient’s loss of follow up, we are unable to establish any long-term complications or reconstructive options in our case.

Conclusion

Abscess of corpus cavernosum is an uncommon presentation but with potential serious and significant complications. It should be considered as a differential diagnosis in patients presenting with an acute onset of a swollen painful penis. Prompt diagnosis and treatment with antibiotics and consideration of early incision and drainage, or aspiration is required.

Appendix A. Supplementary data

Supplementary data related to this article can be found at http://dx.doi.org/10.1016/j.eucr.2018.05.017.

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