Reviewer's report

Title: Partial Segmental Thrombosis of the Corpus Cavernosum (PSTCC) diagnosed by Contrast-enhanced Ultrasound: A Case Report

Version: 2 Date: 3 November 2014

Reviewer: Jonathan Ilicki

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Major Compulsory Revisions (which the author must respond to before a decision on publication can be reached)

1. Case presentation 1st and 2nd paragraph: As the etiology of PSTCC is poorly understood it is important to confirm or dismiss previously suspected risk factors in order to distinguish confounding factors from actual risk factors. Some of the previously suspected factors are not addressed in your text, but are important to confirm or negate:

   - Had the patient previously partaken in excessive bicycle riding, vigorous sexual activity or masturbation? Had he recently flown in an airplane? Or abused marijuana or cocaine? Moreover, coagulation panels differ in different countries. What tests were in the coagulation profile? Was a peripheral smear performed?

2. Case presentation last paragraph, and conclusion paragraph: "Conservative treatment with systemic anticoagulation has shown excellent results concerning pain relief and erectile dysfunction."

   - How long was the patient treated? When was follow-up performed and what was the clinical outcome?

3. Abstract third paragraph; discussion third paragraph; conclusion: “Previous surgery (varicocele ligature) may be a risk factor for developing PSTCC”. This sentence seems misleading. Firstly, not only did the PSTCC occur 6 years after the ligation, but it occurred on the contralateral side. Secondly, uncomplicated varicocele ligation should not involve any surgical trauma to the corpora. Thirdly, no other PSTCC cases have been reported following any other type of scrotal surgery. As the pathophysiological connection between the ligation and the PSTCC is not made clear, and no hypothesis is presented, it is possible that the ligation simply is a concomitant confounding factor. One could consider either explaining a possible pathophysiological mechanism in greater detail or removing that part of the sentence.

4. Abstract 1st paragraph & background 1st paragraph: “Cardinal symptoms are massive pain...”: Massive may not be the most appropriate term as almost all PSTCC patients’ pain has been successfully managed using NSAID, acetylsalicylic acid or other non-opioid analgesics. One could argue that one should remove the word “massive”.

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, spelling mistakes which the author can be trusted to correct)

5. Background 1st paragraph: Kimball, Lewis and Thiel are cited as support for excellent outcome with conservative treatment. However, Lewis does not describe conservative treatment, but rather 2 cases which required a surgical shunt.

6. Discussion treatment paragraph: Goeman and Lewis are cited as support that surgery is used in patients where conservative management fails. However, Goeman’s article states this solely based upon Lewis conclusion. The Goeman citation is therefore redundant.

7. Background 1st paragraph: “unilateral thrombosis, which is typically located in the proximal part of the corpus cavernosum”. PSTCC has only occurred in the proximal corpora. “Typically” indicates that it also can occur distally, which I do not believe has been reported. This could be clarified by instead stating “unilateral thrombosis in the proximal part of the corpus cavernosum”.

8. Background 1st paragraph: “PSTCC is characterized by unilateral thrombosis”. This is erroneous as there have been several bilateral cases. A more correct sentence would be that “PSTCC is characterized by thrombosis that most often is unilateral”.

9. Abstract 1st paragraph, background 1st paragraph: “The etiology of penile thrombosis remains unclear in most cases”. As PSTCC’s pathophysiology is still not at all understood “in most cases” is misleading, as this suggests that the etiology is clear in certain cases. The text would be strengthened by removing “in most cases”.

Discretionary Revisions (which are recommendations for improvement but which the author can choose to ignore)

10. Background 1st paragraph: “(prolonged and painful penile erection)”. Priapism is a common medical term. Anybody reading this article should be expected to be familiar with that term. The article would be more concise without the redundant text in the parenthesis.

11. Case presentation last paragraph: “Conservative treatment consisted of….”. The text would flow better with a transition from the section about diagnostics to the section about treatment, such as “Conservative treatment was initiated and consisted of…”.

Minor issues not for publication (spelling, typographical errors, grammatical errors, stylistic suggestions etc)

12. Abstract 1st paragraph: “Also several risk factors”. I believe “Although” is
grammatically correct whereas “Also” is not in that context.

13. Abstract 1st paragraph “MRI or ultrasound (US) are”: I believe “is” is grammatically correct whereas “are” is not.

14. Abstract 1st paragraph “usually used for diagnosis”: I believe “for diagnosing this condition” would be more grammatically correct.

15. Background 1st paragraph: “This work reports”: I believe “This report describes” or “This case illustrates” is more correct.

16. Case presentation 1st paragraph: “His medical history included a left-sided varicocele ligature six years previously.” I believe the following sentence is more correct: “His medical history was non-contributory except a left-sided varicocele ligature performed six years ago.”

17. Case presentation: You use different syntaxes when writing “hypo-echogenic”, “hyper-echoic”, “hypo echoic”, “hypo-intense”. I believe these words should be written without a hyphen, i.e. hypoechogenic and so forth.

18. Discussion second paragraph: “…second a triggering event (microtrauma) are required for the emergence of corpus cavernosum thrombosis”. I believe the following is more grammatically correct: “…second a triggering event (microtrauma) is required for the emergence of a corpus cavernosum thrombosis”.

19. Discussion second paragraph: “Such membranes may predestinate the emergence of” I believe the following is more correct: “Such membranes may make certain individuals more likely to develop”

20. Discussions 3rd paragraph: “cocain” should be spelled “cocaine”

21. Discussion’s Treatment paragraph: “At this time”: I believe that the following would be more correct “At that time”

22. Conclusion: “PSTCC is a rare condition in young men”. This statement is a bit misleading as it seems as though PSTCC is only rare in young men. A more succinct phrasing would be “PSTCC is a rare condition that predominantly occurs in young men”

23. Conclusion: “In case of suspected PSTCC, utilization of CEUS may be of diagnostic benefit” I believe the following would be more correct: “CEUS may be of diagnostic benefit if one suspects PSTCC”.

24. Case presentation 1st paragraph: “No (sexual) trauma”. This phrasing makes it unclear if you are negating sexual and other trauma or only sexual trauma. I believe that stating “No sexual trauma” or “No trauma” would clarify this.

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** No, the manuscript does not need to be seen by a statistician.
Declaration of competing interests:

I declare that I have no competing interests