Reviewer’s report

Title: Scrotal hemorrhage after testicular sperm aspiration may be associated with phosphodiesterase-5 inhibitor administration: a retrospective study

Version: 0 Date: 11 Nov 2016

Reviewer: Faysal Yafi

Reviewer’s report:

In the manuscript BURO-D-16-00145 entitled "Scrotal hemorrhage after testicular sperm aspiration may be associated with phosphodiesterase-5 inhibitor administration", the authors report on a large cohort of patients who underwent TESA and suggest that use of PDE5i may significantly increase the odds of post-procedural scrotal hemorrhage. The authors should be commended on their interesting and clinically relevant observation. There are, however, major and minor issues that need to be addressed.

* Overall:
  o There are syntax and grammar errors throughout the text. Editorial help is strongly suggested.

* Abstract:
  o No issues

* Background:
  o No issues.

* Methods:
  o If patients are unable to produce sperm by way of masturbation, the authors report they procedures rescheduled due to patients being unable to produce sperm? Were the patients given pornographic material? Did any receive an intracavernosal injection?
  o The authors use the terms TESA and TESE interchangeably. These are 2 different procedures. One is a percutaneous aspiration and the other requires an incision. Which one was performed?
  o What were the causes of azoospermia in the control group? Why was sperm retrieval performed in this group with TESA as opposed to TESE or micro-TESE which would be more appropriate in these patients with smaller pockets of active spermatogenesis for sperm retrieval.
* Results:

- It seems a little odd that the patients in the control group with known azoospermia had larger testicular volume as compared to the drug group which had sperm in their ejaculated sperm. Were the majority of patients in the control group obstructive patients? You would expect a certain amount of azoospermic patients to have smaller testicular volume, especially in the setting of testicular hypofunction.

- Also, the testicular volume of patients in the drug group is particularly small for patients with sperm in the ejaculate. How were measurements made?

* Discussion:

- Good discussion on why PDE5i may cause hemorrhage.

- While the coagulation factors were similar, were any patients on anti-coagulants, anti-platelets, taking NSAIDs?

- Were the patients asked about the level of activity following the procedures?

- There are many variables that are not addressed by the authors that could've contributed to the rates of hemorrhage, and these should be discussed as limitations.

- The authors recommend in the last paragraph that men who have difficulty producing a semen sample of the day of ART should be counseled about using ejaculated sperm for cryopreservation on an earlier date. While this is reasonable, all patients in the drug group had been able to produce ejaculated sperm twice prior to the procedure date. How could they then predict this ahead?

* Conclusions:

- Conclusions should be toned down due to the limitations of this study.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

No

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

**Quality of written English**
Please indicate the quality of language in the manuscript:

Not suitable for publication unless extensively edited

**Declaration of competing interests**
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare that I have no competing interests below

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license ([http://creativecommons.org/licenses/by/4.0/](http://creativecommons.org/licenses/by/4.0/)). I understand that any comments
which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal