

Peer Review File

Article Information: <http://dx.doi.org/10.21037/tau-21-213>

Reviewer A

This is a well written and timely article on injury to the testicle from a rubber bullet.

In the Abstract:

I recommend changing the wording "decreased self-esteem" in line 44 to "psychological impact".

Comment 1: (Reviewer A): I recommend changing the wording "decreased self-esteem" in line 44 to "psychological impact".

Reply: We agree that this wording better encompasses potential impacts to the patient.

Changes in the text: See wording changed to "psychological impact," line 49 of revised text.

In the discussion:

"This case demonstrates how projectiles that strike the testicles can permanently impact a patient's fertility. Genitourinary trauma may also result in hypogonadism, infection, and decreased self-esteem " This is not correct, since we do not know anything about this man's fertility and that is an unknown, but we can say that "This case demonstrates how projectiles used for crowd control that are fired at the lower abdomen/extremities can lead to genital injury, in this case testicular injury. Genitourinary trauma can negatively impact a patient's sexual function, fertility and psychological well-being."

Comment 2: (Reviewer A): "This case demonstrates how projectiles that strike the testicles can permanently impact a patient's fertility. Genitourinary trauma may also result in hypogonadism, infection, and decreased self-esteem " This is not correct, since we do not know anything about this man's fertility and that is an unknown, but we can say that "This case demonstrates how projectiles used for crowd control that are fired at the lower abdomen/extremities can lead to genital injury, in this case testicular injury. Genitourinary trauma can negatively impact a patient's sexual function, fertility and psychological well-being."

Reply: We agree that this is better wording given the unknown long-term status of the patient's fertility. The wording was changed as suggested.

Changes in the text: See lines 93-96 of the revised text to see the wording changed as suggested.

Reviewer B

This case report requires major revisions:

1) The initial reasons given for not proceeding with scrotal exploration is "concern over fertility". However, based on EAU and AUA guidelines there was no indication for exploration on initial imaging as there was no evidence of testicular rupture at this point and no comment on haematocele.

Comment 1: (Reviewer B): The initial reasons given for not proceeding with scrotal exploration is "concern over fertility". However, based on EAU and AUA guidelines there was no indication for exploration on initial imaging as there was no evidence of testicular rupture at this point and no comment on haematocele.

Reply: We acknowledge text as written is not consistent with timeline, discussion of fertility happened after exploration was indicated and has been edited.

Changes in the text: Concerns of fertility text was moved in text to be consistent with when conversation happened chronologically. See lines 74-76.

2) The statement regarding the patients "fertility concerns" needs to be expanded. Why a concern. What is the status of the contralateral testis. Was the patient offered sperm banking. When the eventual decision was made to proceed with surgery was the patient offered sperm banking at that point or a plan for sperm extraction in the event of orchiectomy?

Comment 2: (Reviewer B): The statement regarding the patients "fertility concerns" needs to be expanded. Why a concern. What is the status of the contralateral testis? Was the patient offered sperm banking? When the eventual decision was made to proceed with surgery was the patient offered sperm banking at that point or a plan for sperm extraction in the event of orchiectomy?

Reply: We acknowledge that the text was written in a way that needed more explanation, EMR shows limited information of this concern, the chart states that concerns were addressed.

Changes in the text: Added in the text that all patient concerns of fertility were addressed by the provider. See Line 77-78.

3) The figures are reported as doppler ultrasounds but there is no colour. Figure 2 is not referenced in the text.

Comment 3: (Reviewer B): The figures are reported as doppler ultrasounds but there is no colour. Figure 2 is not referenced in the text.

Reply: We acknowledge that the images shown are ultrasound and not doppler ultrasound.

Changes in the Text: Figure 2 now referenced in line 73 of the revised manuscript. Figure 1 and 2 descriptions have been changed to reflect the correct image type. We added in line 70-71 that on initial exam the doppler ultrasound showed decreased blood flow to the left epididymis.

4) The authors conclude that "This case demonstrates how projectiles that strike the testicles can permanently impact a patient's fertility". This statement is grossly inaccurate as their case report has not shown this.

Comment 4: (Reviewer B): The authors conclude that "This case demonstrates how projectiles that strike the testicles can permanently impact a patient's fertility". This statement is grossly inaccurate as their case report has not shown this.

Reply: We agree that the wording needed to be adjusted given the unknown long-term status of this patient's fertility.

Changes in the Text: Lines 93-96 of the text were changed to "This case demonstrates how projectiles used for crowd control that are fired at the lower abdomen/extremities can lead to genital injury, in this case testicular injury. Genitourinary trauma can negatively impact a patient's sexual function, fertility and psychological well-being."

5) It would be interesting to know if the patient had any follow up imaging and if there was any size discrepancy between the repaired and contralateral testis. There are no contemporary series reporting the rate of atrophy in operatively managed testicular trauma. Although both the EAU and AUA guidelines advocate for exploration in the case of testicular rupture, two studies have shown a 0% orchiectomy rate and 10% atrophy rate with conservative management. [1,2]

[1] Redmond EJ, Mac Namara FT, Giri SK, Flood HD. Blunt testicular trauma—is surgical exploration necessary?. *Irish Journal of Medical Science* (1971-). 2018 Nov;187(4):1109-13.

[2] Cubillos J, Reda EF, Gitlin J, Zelkovic P, Palmer LSA (2010) Conservative approach to testicular rupture in adolescent boys. *J Urol* 184(4 Suppl):1733–1738.

Comment 5: (Reviewer B): It would be interesting to know if the patient had any follow up imaging and if there was any size discrepancy between the repaired and

contralateral testis. There are no contemporary series reporting the rate of atrophy in operatively managed testicular trauma. Although both the EAU and AUA guidelines advocate for exploration in the case of testicular rupture, two studies have shown a 0% orchiectomy rate and 10% atrophy rate with conservative management. [1,2]

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Reply: Patient had follow up 24 days after discharge, on physical exam it was noted that the left testicle was palpably normal and was slightly enlarged compared to the right testicle. Unfortunately, there are no images or further follow up to note. Thank you for your comment.

Changes in the text: No changes in text made as we did not have the information that Reviewer B suggested.