Peer Review File

Article Information: https://dx.doi.org/10.21037/tau-24-94

Reviewer A

This is a great case report highlighting a little known association between OSA, SCD, and risk of stuttering priapism.

Thank you very much for your comments.

Reviewer B

The authors describe in detail their experience with a patient who has SCD and associated stuttering priapism. The description of the course along with the discussion of the relation between AHI, stuttering priapism, SCD and OSA are also well written.

I think the paper would have added value if they waited to ensure that the patient had longer than 3 month follow-up, especially because he did have 3 months of relief with a prior regimen. In addition, if they're able to provide outcomes once they've weaned off of the preventative medications, this may also help justifying the impact of the OSA treatment on the repeated priapism episodes. There is always discussion that with an ischemic priapism episode, treatment of the priapism should not be with increased oxygenation - would this indicate too fargone of a situation in which oxygenation does not have any impact while it does from a preventative standpoint? Also did the patient have normal erections when desired during the 3 months of relief?

Thank you for these questions. We have re-contacted the patient since this paper was submitted and have confirmed he has been without priapism. He is currently weaned off of preventative medications and we have added these statements to the manuscript. (p4 line 107)

As for the treatment of priapism with oxygenation, this is only discouraged as it should not delay definitive treatment of an acute ischemic priapism. But it is our opinion that it is not unreasonable to place a sickle cell patient on oxygen while supplies are being gathered for injections, irrigation, etc in an attempt to improve sickle cell crisis. In our scenario, it is being done more for prevention as the prolonged periods of apnea causing desaturation are theorized to precipitate sickle cell crisis resulting in priapism in this patient.

He has retained the ability to have erections in sexual situations and a statement on this has been added to the manuscript. (p4 line 107)

In addition, from the authors' perspective, where would OSA treatment fall in an algorithm of treatment of a patient with stuttering priapism, SCD and known snoring. As mentioned, there are many possible alternatives that are often discussed with patients based on the side effects of the medications, but where would OSA treatment fall into a treatment algorithm.

Many thanks for your comment. Considering the rarity of our findings, we believe the current existing guidelines should be used first for treating stuttering priapism in all patients regardless of sleep abnormalities. However, we do not see any harm in including a focus on OSA during

the initial workup. From of our experience, we believe pharmacotherapy should be used per the current guidelines and OSA could be treated after determining the lack of function in drug therapy. At this time, we are unable to say whether or not CPAP therapy without initial pharmacotherapy could lead to favorable results. We have added this point of view to the manuscript.

Figure: minor correction - the last tick mark states no additional priapism episodes. In the other tick marks - this indicates any added treatment where as the space between the tick marks indicate the frequency of priapism episodes.
Many thanks for your comment. The following issue has now been updated per your recommendations.

Reviewer C

This is an insightful case report and good review of the literature. I would recommend adding a brief outline of how you would recommend sexual medicine practitioners incorporate this information:

1. The authors should at least allude to validated OSA screening instruments, such as the STOP Bang Questionnaire or provide some idea of qualities in an H&P which should prompt OSA eval.
   We would like to thank you for your comment. Considering the rare nature of encountering such a patient in the urology clinic, we were not aware of such tools at that time. We were only able to refer the patient to sleep specialists and follow up the patient's sleep study and treatment protocols. However, such tools could indeed provide useful information regarding the patient's status and we intend to use these questionnaires for future patients. We have now added such a suggestion to the manuscript. (P5 line 177)

2. Where in the algorithm for stuttering priapism should this knowledge fall? Should we trial all of this patient's medications first, or evaluate OSA immediately? The authors should provide some sense of the general diagnostic approach in use.
   Many thanks for your comment. Considering the rarity of our findings, we believe the current existing guidelines should be used first for treating stuttering priapism in all patients regardless of sleep abnormalities. However, we do not see any harm in including a focus on OSA during the initial workup. From of our experience, we believe pharmacotherapy should be used per the current guidelines and OSA could be treated after determining the lack of function in drug therapy. At this time, we are unable to say whether or not CPAP therapy without initial pharmacotherapy could lead to favorable results. We have added this point of view to the manuscript. (p5 line 177)

   Separately, while the patient's response to OSA treatment is impressive, there should be follow-on data about the sustainability of his response after more than 3 months and after bicalutamide has been tapered off completely.
   We agree with this statement and have added the results for the 6 month follow-up.

As mentioned with the previous reviewer, we have re-contacted the patient and confirmed he has been without priapism, thus giving us a longer follow up period. He has also weaned off of casodex at this time and has remained symptom free at month 7 (1 month without bicalutamide and only with CPAP). (p4 line 107)