Peer Review File

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Reviewer A

The article titled "How and Why Tobacco Use Affects Reconstructive Surgical Practice: A Contemporary Narrative Review", is a comprehensive review of the effects of tobacco consumption on different systems both pre and postoperative. It centers specifically on reconstructive surgery. It is of adequate length, properly referenced. In general, a pleasant read. There are minor issues, and recommendations to consider.

- The section of urologic surgery was divided into small and different aspects of urologic reconstructive surgery as sphincter replacement, Peyronie's disease, urethroplasty etc. I would recommend a subtitle per segment for clarity.

REPLY: Thank you for this suggestion to make our work easier to read and understand. We have added the following subtitles: escutcheonectomy, repair of peyronie's disease, artificial urinary sphincter placement, urethroplasty.

CHANGES IN TEXT: added lines 489, 499, 504, 511

- The headings for methods, summary and conclusions could give the article a more structured feel consider revising.

REPLY: Thank you for this suggestion to make our work easier to read and understand. We have added headers for our methods, conclusion and summary sections

CHANGES IN TEXT: added lines 88, 543, 553

I would like to congratulate the authors on the work done.

The article is a well structured review of the effects of tobacco exposure in reconstructive urologic surgery.

REPLY: Thank you for recognizing our work.

Reviewer B

Tobacco use is highly prevalent; efforts at cessation, despite many large efforts, are challenging. This is a relevant topic for review and discussion.

The manuscript is well written, its introduction and description of scope of the study is thorough.

The authors review a number of concerns that relate to tobacco use and anesthesia/surgical risks and a number of studies that pertain to surgical site wound healing itself, which are all well referenced.

REPLY: Thank you for the recognition of our work.

The authors review some urology specific investigations relating to urologic surgeries/reconstructions with relatively smaller numbers of patients, where tobacco use was not necessarily noted to be an independent factor for complications-however it is not clear if these studies were powered to determine such. Throughout the narrative summary, the authors also mention factors that may further confound the actual use/time of use of tobacco by patients.

REPLY: Thank you for pointing out this oversight in our conclusion to the urologic surgery section of our review. Unfortunately, none of the urology specific studies are powered to look at the impact of tobacco or smoking on outcomes. Additionally, very few of the studies separated former and current smokers, which may further confound the actual use of tobacco by patients. We have clarified these points in the manuscript.

CHANGES IN TEXT (line 534-542): Overall, the literature on the impact of smoking on post-operative outcomes following elective urologic surgery is limited, which can make drawing broad conclusions difficult. Most of the studies that do report smoking or tobacco use as an investigational variable in outcomes did not have the effect of smoking as a primary outcome, and thus are not powered to look at the effect of tobacco. The largest cohort included over 1200 patients but only 41 of those were active smokers. Those studies that were designed to specifically to assess the effect of tobacco use were very small cohorts. Additionally, many of the urology specific studies did not differentiate between current and former smokers which may have blunted any effect smoking has on surgical outcomes.

It is important that the authors summarize all of the results of tobacco use and surgery in a manner that first reflects the risk of tobacco use with surgery/anesthesia and surgical procedures in general, as urology patients certainly fall in this domain. If the authors feel that the smaller/limited data on tobacco use and urologic reconstructive procedures is strong enough to support the statement that patients should not be cancelled due inability to cease tobacco use they need to present all the existent data in support of that versus all of the data that relates to tobacco use and surgical complications in general, which appears to be very well supported.

RELPY: Thank you for highlighting this discrepancy in our manuscript. We have addressed these concerns at the end of the general effects on surgical outcomes section and again in the conclusion of the review.

CHANGES IN TEXT (line 478-481): Smoking is a constant assault to all organ systems, which the body can withstand and even repair to varying degrees. This makes its impact on the post-surgical patient difficult to assess, but there is good evidence that smoking increases the risk of pulmonary complications and wound complications. A summary of the literature findings can be seen in Table 2.

(line 546) A shared decision-making approach should be employed when discussing the increased risk of wound and pulmonary complications smokers in the setting of elective urologic surgeries.

Summary tables for the effects of tobacco use on the various aspects of surgery discussed it the narrative would be helpful.

REPLY: Thank you for this suggestion to enhance the ease of understanding of our work. We have added table 2 which summarizes the findings discussed in the narrative.

CHANGES IN TEXT (line 481): added table 2: impact of smoking on the surgical patient.