Reviewer’s report

Title: The Application of Barbed Suture during the Partial Nephrectomy May Modify Perioperative Results: A Systematic Review and Meta-analysis

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Reviewer: Cristian Fiori

Reviewer’s report:

The Authors explore the role of barbed suture in the setting of PN. They performed a systematic review of the Literature and analysed 8 cohort of studies (and no RCT) and they found that barbed suture may reduce WIT and post operative complications. They concluded that the barbed suture is a useful surgical innovation both for surgeons and Patients even if they suggest that randomly-designed studies with longer follow up and larger sample sizes are needed to confirm the results of their analysis.

Overall the paper focused on an interesting technical detail.

I have some suggestions/criticisms for the Authors.

Title. Why …. "For the patients and surgeons"? The Authors did not investigated the "preferences" of the surgeons and there is no mention on questionnaires on the "appreciation" of the suture by the surgeon.

So I suggest the modification of the title (focusing on perioperative results …."The Application of Barbed Sutures during the Partial Nephrectomy may modify perioperative results.. " or similar)

Background.

First line: not only for small tumours but also for larger (until 7cm and more) when technically feasible.

Second line: I do not agree, even type of resection (enucleation/wedge resection etc) may play a role (see references), such as the type of suture. Please soften this statement

"no one can be fully satisfactory to health providers and patients". Is it an opinion of the Authors? If no please give a reference. In general the sentence does not make sense to me. Please change it.

Line 34 "this technique". Which technique? The use of barbed suture is not a technique…

Mat and Meth. Adequate
Results. Adequate.

May the Authors share with the readers if the different groups (barbed vs no barbed) were comparable (demographic data, tumour characteristics) etc for all studies?

Discussion "SCr and eGFR were the most commonly used tools to evaluate renal function after PN[1], but the change of these two indexes were only reported in four studies[19,20,22,23]. Since all the raw data suggested no significant shift between both groups, many researchers believed that the results needed larger sample size[23] and longer follow up time to confirm, say at least 5-year follow up[20". There are many way to determine loss of renal function and evaluate the effects of surgery on renal function (see references). Please cite it.

I totally agree with the limit's disclosure proposed by the Authors.

References:

Introduction and discussion may be improved by using these papers:


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.

Unable to assess

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

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 recommend additional statistical review

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

Needs some language corrections before being published

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