Reviewer's report

Title: Presence of transient hydronephrosis immediately after surgery has a limited influence on renal function 1 year after ileal neobladder construction

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Reviewer: Syed Nazim

Reviewer's report:

This is an interesting study describing the significance of transient hydronephrosis on long term renal function post neo-bladder reconstruction. The authors claim this (retrospective) study to be the first report to describe this.

Following are the reviewer's observations.

1. In the ethics statement, the authors have mentioned that "the participants in this study provide their verbal informed consent, and it was recorded in medical chart". How in a retrospective study, the participants could provide consent?

2. In the patient selection, the authors describe as "137 patients without serum Creatinine levels and/or computed tomography (CT) imaging within one year after surgery........ were excluded". Did all 64 patients who were included in the study have their CT scans at one month and one year post operatively? Moreover, if so, were all scans done in same machine/scanner. Was it multi-detector (MDCT) or were these different ones (like 4 slice, 16 slice, 64 slice etc). If different machines were used at different times (from 1996-2013), there is a potential difference in diagnostic accuracy (sensitivity and specificity) of scanners. How was this potential difference corrected?

3. Why the hydronephrosis grading measured by single urologist? Why not by a radiologist or multiple observers?

4. In patients' follow up, the authors mentioned that "Ureteral stents were removed 1 week after surgery under radiographic guidance to confirm absence of stricture". How did subsequent formation of uretero-intestinal stricture excluded? as it can also contribute to worsening of HN or renal function deterioration.

5. "Patients were discharged 4-6 weeks after surgery" What was the mean duration of hospitalization?

6. In the patient's follow up, it is mentioned that "each patient was assessed every 3 months using ultrasonography to monitor for hydronephrosis" and later as "CT was performed every
6-12 months for the early detection of tumor recurrence". What was the investigation done to grade the hydronephrosis and its comparison at one and 12 months?

7. In the results portion, the authors described as "Sixty-one patients (95%) received carboplatin-based neo adjuvant therapy". Was neo adjuvant chemo a routine protocol at authors' institute since 1996? How many cycles of carboplatin-based chemo were given and what was the time interval b/w neo-adjuvant chemo and surgery?

8. In the table 1, the authors have stratified hydronephrosis into control, low, intermediate and high groups. Lower down they have mentioned about hydronephrosis graded before surgery, one month after surgery and 1 year after surgery. It appears from the result that none of the patients had pre-operative hydronephrosis while mean grade increased in all stratified groups at one month and then again hydronephrosis came down at one year. What is the plausible explanation for this phenomenon?

9. The authors have mentioned complication rate of 25 %. Kindly stratify them according to some standardized grading system like Modified Clavian grade.

10. The Figure 1 describing the grade and hydronephrosis stratification. Is it the original artwork and copyright protected? If not, whether prior permission was taken if it was reproduced?

11. In a continent reservoir, many other factors can affect renal function such as status of neobladder-urethral anastomosis. What was the mean reservoir capacity? What was the continence status? How many patients had uro-dynamic testing done to determine the neobladder pressure during voiding which could contribute to hydronephrosis and hence renal function deterioration in a non-refluxing uretero-intestinal anastomosis. How many of patient required CISC / indwelling catheter after the surgery?

**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?**
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Unable to assess

**Are the conclusions drawn adequately supported by the data shown?**
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