Reviewer’s report

Title: The role of diagnostic ureteroscopy in the era of computed tomography urography.

Version: 2 Date: 1 March 2015

Reviewer: Olivier Traxer

Reviewer’s report:

Major Compulsory Revisions

This is an interesting article assessing the role of diagnostic ureteroscopy in the UTUC.

I have some comments:

Introduction:

Page 4 line 89, you could discuss the controversy between the Campbell’s Urology and the 2014 EAU guidelines (Flexible ureteroscopy is especially useful when there is diagnostic uncertainty, when conservative treatment is being considered, or in patients with a solitary kidney. If available, ureteroscopy and biopsy should be performed in the pre-operative assessment of any UTUC patient. Combining ureteroscopic biopsy grade, diagnostic imaging findings such as hydronephrosis, and urinary cytology, may help to decide between radical nephroureterectomy (RNU) and endoscopic treatment)

Material and Methods:

- It will be interesting to mention which ureteroscopes where used. Between 2003 and 2010 there were some improvements in the URS technology like the digital flexible-URS and the NBI technology which improves the visualization and the accuracy of diagnosis. If yes, in which cases did you use the NBI technology and/or digital scope?

- You should incorporate the following sentence of the results section (page 2, line 139-141) in the method section “Complete endoscopic examination of the ureter, renal pelvis and calyx has been performed in all patients”.

- Is flexible-URS was systematic for renal examination?

- About histology, you should use the WHO 2004 classification for tumor grade and the TNM 2009 for UTUC

- What was the follow-up for patients with chronic kidney disease?

Results:

- You should mention the number of patients with chronic kidney disease

- Please, mention the inclusion dates. Because you mentioned you did 1818 between 2003 and 2008 but when did the first patient included undergo surgery? Even for the last one. I ask this question because the improvements in
technology during the study period.
- The complications should be classified according to the Clavien Dindo classification. Furthermore, you have to mention that in the section method (not in the discussion). The complication rate is not the primary endpoint. If you want to keep it, you have to mention that clearly in the objective as secondary endpoint.
- It could be interesting to calculate the sensitivity and specificity for CTU, ultrasound and urine cytology.
- I think to compare URS and the other modalities of diagnosis, it is really important to specify the URS you used and the use of NBI if yes.

Discussion:
- One of the limitations is the use of ultrasound as modality to undergo URS. This imagery modality is unfortunately subjected to inter-observer bias and has a lack of accuracy (in obese patients for example). I am not sure that it is a good idea to include these patients because ultrasound is no recommended as imagery modality for the diagnosis of UTUC.
- I have no comment with the rest of the discussion which is good. As you did, another limitation is the small population of the study, but UTUC is a rare pathology.

Conclusions:
I think you just have to include patients with positive CTU and those with positive urine cytology and negative cystoscopy.
I think you have to describe clearly the objective: the first endpoint is to assess the accuracy of URS compared to the other technics and the secondary endpoint is to assess the efficacy of URS treatment and the complication rate.

**Level of interest:** An article of limited interest

**Quality of written English:** Acceptable

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**
I declare that I have no competing interests.