Author’s response to reviews

Title: Kidney stone formers have more renal parenchymal crystals than non-stone formers, particularly in the papilla region

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Author’s response to reviews:

January 03, 2018
Riccardo Galli, M.D.
Associate Editor
BMC Urology

Dear Editor:

Thank you for your letter dated December 11, 2017 regarding our manuscript (BURO-D-17-00226R1) entitled “Stone formers demonstrated higher number of renal parenchymal crystals especially in papilla region than non-stone formers,” now titled "Kidney stone formers have more renal parenchymal crystals than non-stone formers, particularly in the papilla region." We
appreciate the comments provided by the reviewers and have revised the manuscript accordingly. I hereby submit the revised version of our manuscript along with our responses to the reviewers’ comments. The changes are in red text in the manuscript file.

I hope that the changes made to the manuscript are satisfactory and that the manuscript is now suitable for publication in BMC Urology.

Thank you for your consideration.

Sincerely,

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Filippo Maria Turri (Reviewer 1): Very innovative and interesting work.

Please specify in the material & methods when the patients where selected (month and year of the beginning of the selection and of the end of the time span). As well specify how nephrectomy was performed

In the patients that had stones at the moment of nephrectomy, was any analysis of the stone carried out?
Response to Reviewer 1:

The details of the participants are described in the Abstract and Methods sections. The patients underwent radical nephrectomy from June 2004 to February 2010 and we analyzed the resected tissue retrospectively. During this period, T1 kidney cancer was treated via nephrectomy rather than partial nephrectomy using laparoscopic or robot-assisted surgery. Samples from partial nephrectomy were excluded because there was too little kidney parenchyma, making analysis of the cortex, medulla, and renal papilla impossible.

In addition, we made a mistake in the original manuscript. In the Methods section, we stated that only patients with T1 kidney cancers were included. This mistake has been revised and Table 2 now states that the patients had T1-T3 kidney cancers. We have added the above to the Methods section.

Unfortunately, the components of the kidney stones have not been analyzed. We described this as one of the limitations of the study in the Discussion section.

Mohamed Keheila, M.D. (Reviewer 2): I think the study has multiple major limitations that may impact the validity of the results:

1-I do not think that patients with RCC are not good sample for general SF patients because RCC is systemic disease and may have (confounding) impacts on the functions of the tubules.

2-The study compared 2 groups depending on the presence or absent of stone at time of diagnosis of RCC and did not mention if any of the patients have past history or family history of stone formation,

3-multivariate analysis is needed to detect factors contributing to stone formation.

4-were there any difference in Tumor site, size, location?
Response to Reviewer 2:

Comment 1.

As mentioned in the reviewer's comment, we could not confirm that the background of the kidney tumor did not affect stone formation. We have described this as a limitation of the study in the Discussion section.

Comment 2.

Because this study was retrospective in nature, the details of the stones were not mentioned, although there was some evidence that there was no family history of stone formation. This has also been mentioned as a limitation of the study in the Discussion section.

Comments 3 and 4.

We have added a description of the multivariate analyses used to detect the factors involved in stone formation. Furthermore, when studying the features of the tumors, we found that we had wrongly stated in the original manuscript that all patients had T1 renal cancer in the Methods section. We have corrected this and the relevant section now states that patients with T1-3 renal cancers were included, the details of which are presented in Table 2. We apologize for this oversight. We have also added the affected side as a factor, which was not associated with stone formation.

Editorial Comments to the author:

If improvements to the English language within your manuscript have been requested, you should have your manuscript reviewed by someone who is fluent in English.

Response to Editor:

English proofreading has been performed and a certification of English editing has been attached.