Reviewer’s report

Title: SALIVARY CREATININE AS A DIAGNOSTIC TOOL FOR EVALUATING PATIENTS WITH CHRONIC KIDNEY DISEASE

Version: 0 Date: 10 Apr 2019

Reviewer: Davide Bolignano

Reviewer's report:

This is an interesting paper on the potential usefulness of salivary creatinine as a quick, non-invasive way to assess CKD. Perhaps this may represent in the future a quick, easy and cheap test for screening people at risk of having CKD, which may give indication to perform further exams. This perspective of future application might perhaps be further stressed all along the manuscript.

I have some major/minor comments for the Authors that may help improving the quality of their paper.

While describing the Epidemiology of CKD in Africa, it might be good to reference another quite recent systematic review on this issue (Abd ElHafeez et al. BMJ Open. 2018 Jan 10;8(1):e015069.)

On page 4 (lines 21-23) the sentence "Stages 1 and 2 (GFR above and below 90 ml/min/1.73m2 are diagnosed only when there are other markers of kidney damage present (e.g. proteinuria)" is wrong and must be properly corrected. Actually, according to current definitions the presence of stable urinary abnormalities (proteinuria, hematuria…) is needed only to make a diagnosis of CKD stage 1 with eGFR≥90 mL/min. Conversely, CKD stage 2 can be diagnosed with eGFR 89-60 even if no urinary abnormality is present (as correctly stated afterwards).

Etiology of CKD must be provided and possible differences in salivary creatinine according to type of disease investigated.

It would have been interesting to investigate whether salivary creatinine may correlate also with other anthropometric and lab parameters, as in some cases serum creatinine does. I'm thinking about BP, PTH, inflammation, urea, electrolytes, uricemia, age, BMI, CKD vintage…

Nevertheless, a more detailed summary table containing the key characteristics of individuals participating into the study is necessary.

It would be great if the Authors may provide some additional figures, e.g. about the linear relationship between serum and urinary creatinine

The lack of a direct (ioexol scan) rather than an estimated (eGFR) renal function measurement as reference standard should be more emphasized as one of the key limitation of this study. Similarly, on
page 6 line 36 it is wrong that serum creatinine can be considered a gold standard for assessing renal function as a long series of well-established factors (e.g. muscle mass, diet, age…) may influence the reliability of this biomarker.

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Yes: Possible advancement in technology for screening CKD

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