Reviewer's report

Title: Utility of Serial Urinary Cytology in the Initial Evaluation of the Asymptomatic Patient with Microscopic Hematuria

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Reviewer: Vinod B. Shidham

Reviewer's report:

Re: Utility of Serial Urinary Cytology in the initial evaluation of the asymptomatic patient with microscopic hematuria.

This study obviously shows significant bias. Based on the statements in the introduction and discussion, the authors show significant bias against cytologic evaluation of urine. The results however, do not justify the conclusion based on the same statements other investigational approaches should also be regarded as less sensitive for this category of microscopic hematuria, which authors have observed that is associated with lower prevalence of neoplastic lesions. Depending on the resources in the particular community and institution, urine cytology is least invasive and relatively less expensive.

Authors do not mention how many cases were in situ urothelial neoplasm. Many of the high-grade urothelial carcinoma in-situ are difficult to be detected by cystoscopy alone. In such cases, urine cytology has shown more sensitivity. Table 4 shows that out of 17 positive biopsies, 2 cases were negative by cytology, however author does not highlight how many cytologies were performed on this case and what does the meaning positive biopsies mean. As it is well known, cytology is relatively less sensitive in lower grade papillary-type lesions, which are easily detected during cystoscopy. If these biopsies were high grade urothelial carcinoma in situ and still the cytology was missing that would be significant factor. Most of these cases should be detected in serial evaluation of urine cytology if carcinoma in situ is suspected. In summary, the manuscript is unscientific with biases and should not be published in this form with biased conclusion.

It may be modified to communicate and highlight the point that the subset of patients with microscopic hematuria have low prevalence of cancer and should be managed with this fact in mind.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Not suitable for publication unless extensively edited

Statistical review: No, the manuscript does not need to be seen by a statistician.
Declaration of competing interests:

'I declare that I have no competing interests'