Reviewer's report

Title: Change in serum sodium level predicts clinical manifestations of transurethral resection syndrome

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Reviewer: Giuseppe Vezzoli

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The paper of Ishio et al evaluates serum sodium concentration changes in patients developing transurethral resection syndrome compared with another group of patients who did not develop this syndrome after transurethral prostate resection. The study identifies sodium concentration changes predicting the occurrence of the syndrome.

Major compulsory revisions.

The Authors proposed two criteria to define serum sodium changes associated with the transurethral resection syndrome. These criteria do not appear homogeneous to me. The first criterion is a change of 7 mmol/l of the absolute sodium concentration that is 5-6% of a sodium concentration between 115-140 mmol/l. The other criterion is a change of 7% of the sodium concentration that is a variation of 8-10 mmol/l of an absolute concentration between 115 and 140 mmol/l.

Minor essential revisions

Probably, the Authors have to discuss the different prostate volume and hemoglobin (table 1) in patients developing and not developing symptoms.

In table 2, it is not clear what is “minimum sodium level”. Probably, it could be better to report the variable as the absolute value.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

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