Author's response to reviews

Title: Prediction of clinical manifestations of transurethral resection syndrome by preoperative ultrasonographic estimation of prostate weight

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Version: 3
Date: 19 June 2014

Author's response to reviews: see over
Authors’ response to reviews

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Prediction of clinical manifestations of transurethral resection syndrome by preoperative ultrasonographic estimation of prostate weight

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Reviewer's report 1

Title: Prediction of clinical manifestations of transurethral resection syndrome by preoperative ultrasonographic estimation of prostate weight

Version: 2 Date: 11 May 2014

Reviewer: Ahmad Shamsodini

Reviewer's report:

Minor Essential Revisions

1. This is a retrospective observational study that has its own limitations. In the background the objectives of the study and the scope of the study is clearly emphasised though the subject matter of the study is not new and the limitations and the the problems of the study was not mentioned.

Thank you for your constructive comments.

We have added the limitations of the study to the Discussion section of the manuscript, as follows.

“This study is limited by its retrospective, observational design. However, the patient details and timing of blood tests were carefully evaluated using data recorded in the comprehensive preoperative and anesthetic records to ensure accuracy.”

2. In the background, the statement “Transurethral resection (TUR) syndrome is usually defined as a serum sodium level of < 125 mmol/l combined with clinical cardiovascular or neurological manifestations” needs reference.

We have cited references to support this statement.
3. In the background, the statement "The theoretical risk factors for TUR syndrome include patent prostatic sinuses, high irrigation pressure, prolonged operation time, and use of hypotonic irrigation fluid." needs reference. We have cited a reference to support this statement, which is an important review article by Gravenstein et al. that describes the pathophysiology and management of TUR syndrome.

4. In the methods the study population detailed adequately and the study design is clear and statistical methods are included. Thank you for your comments.

5. In the results section the information provided is straightforward and not confusing with appropriate statistical methods. This has reflected well in the tables. Thank you for your comments.

6. In discussion section the aim of the study have changed from the title of the paper which one can consider changing the title of the paper. "The majority of definitions of TUR syndrome require a serum sodium level of < 125 mmol/l. However, patients with serum sodium levels of #125 mmol/l may also develop clinical manifestations of TUR syndrome." These sentences were deleted because this information is already described elsewhere in the manuscript. The current title indicates that the study focused on patients with clinical manifestations of TUR syndrome, rather than strictly those
with a serum sodium level of < 125 mmol/l.

Level of interest: An article of importance in its field Quality of written English: Acceptable
Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.
Declaration of competing interests:
I declare that I don't have any financial or non financial intreats regarding this paper.
Reviewer's report 2

Title: Prediction of clinical manifestations of transurethral resection syndrome by preoperative ultrasonographic estimation of prostate weight

Version: 2 Date: 27 May 2014
Reviewer: lorenzo G luciani

Reviewer's report:

MAJOR

1. The authors should be complimented for this well conducted and well written study. The authors emphasize that the diagnosis of TUR syndrome might be difficult and misleading, and in general, underreported. However, the incidence of this complication is somewhat too high (24% versus less than 2% in contemporary series), even considering different definitions of TUR syndrome. It would be interesting to report how high the incidence would be with different definitions. Also, the use of a cystostomy tube becomes here a risk factor, please explain better.

Thank you for your constructive comments. The 24% incidence of TUR syndrome is much higher than in previous studies, which may be attributable to the differences in definitions among studies. The definitions commonly used in previous reports include a serum sodium level of < 125 mmol/l. However, obvious clinical manifestations of TUR syndrome can occur intraoperatively and postoperatively even in patients with a serum sodium level of > 125 mmol/l, and can be differentiated from the side effects of regional anesthesia. The proportion of patients in our study that met the ‘usual definition’ based on the sodium level was 13.2%. We added this information in Discussion in the manuscript.
We have simplified the Discussion section by removing some of the text describing continuous drainage from the cystostomy tube, and have cited our previous study that also found continuous drainage of irrigation fluid through a suprapubic cystostomy to be a risk factor for TUR syndrome in old patients. A lot of patients had abdominal swelling caused by irrigation fluid leaking from the drainage point into the extraperitoneal space and abdominal cavity.

MINOR /
DISCRETIONARY
2. Too many description details in the preparation of the patient.

We reviewed the paragraph describing the preparation of the patient. As we feel that this paragraph provides important information about factors that may affect the risk of TUR syndrome, we have not altered it.

**Level of interest:** An article whose findings are important to those with closely related research interests  
**Quality of written English:** Needs some language corrections before being published

The entire manuscript has been reviewed and corrected by a native English speaking editor.

**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.