Author's response to reviews

Title: Effect of warm intravenous and irrigating fluids on body temperature during transurethral resection of the prostate gland.

Authors:

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Version: 2 Date: 10 May 2007

Author's response to reviews: see over
The responses to the comments 1 are in red please.

Reviewer’s report
Effect of warm intravenous and irrigating fluids on body temperature during transurethral resection of Title:
the prostate gland.
1 27 April 2007 Version: Date:
Thayne Larson Reviewer:
Reviewer’s report:
General
The study is well down in the conditions afforded. Constant temperature of irrigation fluid is not known and could be a variable, but since all groups were down in the same procedure most likely is not an issue. I recommend acceptance with only discretionary revisions.
I do wonder why more people’s names are not on the paper... were no other physicians included in the study? Response: Only my patients were used for the study and all the operative procedures were carried out by me. The tremendous assistance rendered by the nursing staff has been duly acknowledged.

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)
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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)
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Discretionary Revisions
Page 4.... top of page... Please take out the boiling and cooling of water. I understand what is trying to be said but it is confusing in that statement on page 4. It is explained elsewhere....Response: “and cooled” has been deleted and the statement now reads “boiled water as irrigation fluid”. This is highlighted in red in the manuscript.

Accept after discretionary revisions What next?:
An article of limited interest Level of interest:
Acceptable Quality of written English:
No, the manuscript does not need to be seen by a statistician. Statistical review:
Declaration of competing interests:
I have no competing interest.
Response to reviewer's comments 2. In RED Please

Reviewer's report
Effect of warm intravenous and irrigating fluids on body temperature during transurethral resection of Title: the prostate gland.
1 18 April 2007 Version: Date:
Christopher R Chapple Reviewer:

Reviewer's report:
General
Well conducted piece of work with a clear and useful message. The author may wish to include reference to the following work which clearly showed the importance of central cooling at the time of TURP, in 1991/2. Response: These have been accepted and incorporated in the manuscript as ref 3 and 4. The other references have been adjusted accordingly and marked RED in the text and reference list.

Comment in:
BMJ. 1992 May 9;304(6836):1247.
BMJ. 1992 May 9;304(6836):1247.

Haemodynamic evidence for cardiac stress during transurethral prostatectomy.
Evans JW, Singer M, Chapple CR, Macartney N, Walker JM, Milroy EJ.
Department of Urology, Middlesex Hospital, London.

OBJECTIVE--To compare haemodynamic performance during transurethral prostatectomy and non-endoscopic control procedures similar in duration and surgical trauma. DESIGN--Controlled comparative study. SETTING--London teaching hospital. PATIENTS--33 men aged 50-85 years in American Society of Anesthesiologists risk groups I and II undergoing transurethral prostatectomy (20), herniorrhaphy (eight), or testicular exploration (five). MAIN OUTCOME MEASURES--Percentage change from baseline in mean arterial pressure, heart rate, Doppler indices of stroke volume and cardiac output, and index of systemic vascular resistance, and change from baseline in core temperature. RESULTS--In the control group mean arterial pressure fell to 11% (95% confidence interval -17% to -5%) below baseline at two minutes into surgery and remained below baseline; there were no other overall changes in haemodynamic variables and the core temperature was stable. During transurethral prostatectomy mean arterial pressure increased by 16% (5% to 27%) at the two minute recording and remained raised throughout. Bradycardia reached -7% (-14% to 1%) by the end of the procedure. Doppler indices of stroke volume fell progressively to 15% (-24% to -6%) below baseline at the end of the procedure, and the index of cardiac output fell to 21% (-32% to -10%) below baseline by the end of the procedure. The index of systemic vascular resistance was increased by 28% (17% to 38%) at two minutes, and by 46.8% (28% to 66%) at the end of the procedure. Core temperature fell by a mean of 0.8 (-1.0 to -0.6) degrees C. Significant differences existed between the two groups in summary measures of mean arterial pressure (p less than 0.05), Doppler indices of stroke volume (p less than 0.005) and cardiac output (p less than 0.005), index of systemic vascular resistance (p less than 0.0005), and core temperature (p less than 0.0001). CONCLUSIONS--Important
Haemodynamic disturbances were identified during routine apparently uneventful transurethral prostatectomy but not during control procedures. These responses may be related to the rapid central cooling observed during transurethral prostatectomy and require further study.

Publication Types:
- Clinical Trial
- Comparative Study
- Controlled Clinical Trial

Research Support, Non-U.S. Gov't
PMID: 1571637 [PubMed - indexed for MEDLINE]
Haemodynamic evidence for per-operative cardiac stress during transurethral prostatectomy. Preliminary communication.
Evans JW, Singer M, Chapple CR, Macartney N, Coppinger SW, Milroy EJ. Department of Urology, Middlesex Hospital, London.

Haemodynamic changes were measured during routine transurethral prostatectomy (TURP). The heart rate and stroke volume fell progressively over the first 30 min of surgery, resulting in a steady reduction in cardiac output. There was a significant increase in left ventricular afterload from commencement of the procedure. These findings demonstrate that haemodynamic responses, which are not detectable using conventional methods of monitoring, occur during TURP. Increased left ventricular afterload indicates increased myocardial work and oxygen demand which could result in myocardial ischaemia. This may contribute to the increased cardiovascular morbidity and mortality which have been reported to occur after TURP. The possible underlying mechanisms are discussed.

PMID: 1709578 [PubMed - indexed for MEDLINE]

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

Discretionary Revisions (which the author can choose to ignore)
Accept after discretionary revisions What next?:
An article whose findings are important to those with closely related research interests Level of interest:
Acceptable Quality of written English:
No, the manuscript does not need to be seen by a statistician. Statistical review:
Declaration of competing interests:
I declare that I have no competing interests