Reviewer's report

Title: Bladder irrigation and urothelium disruption: a reminder apropos of a case of fatal fluid absorption.

Version: 3 Date: 3 May 2014

Reviewer: Robert G Hahn

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The case report deals with a patient who had bladder rupture during washings with isotonic saline solution to prevent macrohematuria from causing outflow obstruction. The literature about possible explanations to the unfortunate outcome of this case is carefully discussed. I spontaneously believe that the sudden loss of 5 L of washing solution would imply that bladder perforation had occurred, possibly caused by outflow obstruction or errors in handling of the 3-way catheter, but this seems not to be the case. The catheter could also be cause mechanical damage so as to allow fluid to be extravasated. The exact mechanism to why fluid entered to body is unclear - however if blood comes out somewhere in the bladder fluid must be able to enter the same way.

Using a bag height of 150 cm allows the pressure in the bladder to be quite high.

Minor essential revisions:
1. The take-home message for me is to always be careful with the fluid balance when irrigating the bladder - one should not put 5 L of fluid in the bladder but check the returns after much smaller volumes.

2. Isotonic saline is expected to cause pulmonary edema but not brain edema. To have this effect a reduction of serum osmolality must occur. I expect the hemodialysis to have contributed here. You may comment on this.

Discretionary revision:
Abstract: line 27 should be macrohematuria.

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

Quality of written English: Acceptable

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

Declaration of competing interests:
I have no competing interests.