Reviewer's report

Title: Intestinal ischemia following laparoscopic surgery

Version: 3 Date: 20 August 2012

Reviewer: Konstantinos Blouhos

Which of the following following best describes what type of case report this is?: An unexpected event in the course of observing or treating a patient

Has the case been reported coherently?: Yes

Is the case report authentic?: Yes

Is the case report ethical?: Yes

Is there any missing information that you think must be added before publication?: Yes

Is this case worth reporting?: Yes

Is the case report persuasive?: Yes

Does the case report have explanatory value?: Yes

Does the case report have diagnostic value?: Yes

Will the case report make a difference to clinical practice?: Yes

Is the anonymity of the patient protected?: Yes

Comments to authors:

General comments
Laparoscopic surgery has become the standard of care for many pathological conditions, and the laparoscopic technique is recognized as being safe and effective. However, recent case reports in the surgical literature describe small bowel ischemia as a rare fatal complication of the CO2 pneumoperitoneum.

The CO2 pneumoperitoneum appears to be a predisposing factor in the development of intestinal ischemia because it compromises the mesenteric circulation through decreased cardiac output and mechanical reduction of the blood flow due to increased intraabdominal pressure, and humoral vasoconstriction. However, the authors of the present report must describe in the discussion section in more detail that progression to critical ischemia seems to rely on underlying vasculopathy or an inciting event.
This is a nice report of great clinical value, but it is important for us and the authors to give a more detailed discussion about risk factors, preventing measures and patient selection for laparoscopy. Being aware not for the rarity but for the devastating nature of the complication!

Revisions necessary for publication

Specific comments

The present case series report should provide sufficient data in order to add new informations in the literature. For example:

More specific details should be added regarding postoperative clinical, laboratory and imaging findings for early detection of mesenteric ischemia.

Specific risk factors for mesenteric ischemia (such as cardiac output state, cardiac arrythmias, cardiac valvular disease, underlying vasculopathy) should be thoroughly referred in the text, as cardiovascular disease is a general term which do not provide sufficient information.

Informations regarding postoperative medications such as LMHeparins should be added.

A literature search using Pubmed revealed only 14 relevant case reports with overall mortality of 79%. Two thirds of the patients who survived were young. In the present study the authors should express their opinion regarding the low mortality rate of their high risk patients. Moreover, it would have been useful if the authors share, in a paragraph, their experience regarding cases of mesenteric ischemia after similar selective open procedures in order to express their opinion regarding preoperative selection of high risk patients.

Quality of written English: Acceptable

Declaration of competing interests:

'I declare that I have no competing interests'