Reviewer's report

Title: Histological response of peritoneal carcinomatosis after hyperthermic intraperitoneal chemoperfusion (HIPEC) in experimental investigations.

Version: 1 Date: 6 January 2006

Reviewer: frans A.N. zoetmulder

Reviewer's report:

General
This is a well written interesting paper. The question on the effect of intraperitoneal MMC with or without hyperthermia is relevant and interesting. The model used by the authors seems to be well reproducible and provides a good model for the study of peritoneal carcinomatosis. The observed effects of ip MMC and hyperthermia separately and in combination are convincing.

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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 (which the author can choose to ignore)

Some minor questions and comments:
the authors do not specify what sham operation was done?
Rats are usually quite sensitive to systemic hyperthermia during hyperthermic abdominal perfusion. Did the authors observe this too, and did they use cooling for the brain?
The authors do not report on the extent of PC at the time of treatment. It would be of interest to know what the diameter of peritoneal tumors was at that moment in view of the question of effective penetration of peritoneal tumors by ip chemotherapy.
It is not clear to me why the authors choose a different dosage for the MMC mono therapy, compared to the HIPEC group. Did they perhaps measure the residu MMC removed from the abdomen after 90 minutes of HIPEC, and correct the ip installation dose accordingly? This should be explained.
The observation that tumor cell survival was predominantly in the centre of tumor nodi should be made in the results, and not pop up in the discussion.
The legend of table 1 is not very informative. What is the unit on the vertical bar? The asterix should reed: group 4 versus group 1 and 2: p<0.036
the legend of table 2: The group size of groups 4 en 5 should also be mentioned, either in the legend, or in the table. The use of statistical comparisons could be better explained here. To me comparison of the treatment groups versus the sham group would seem most relevant.
There are still a few german words that escaped like gruppe, in the discussion.

What next?: Accept after discretionary revisions
Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests:
I declare that I have no competing interests