Reviewer's report

Title: Evaluation of suspected Malignant Hyperthermia events during anaesthesia

Version: 1 Date: 10 April 2013

Reviewer: Neil A Pollock

Reviewer's report:

major compulsory revisions.
1. The numbers of cases in the results section do not appear consistent e.g.19 patents were referred because of a suspected MH event. The 3rd paragraph of the result indicates that succinylcholine was used in 11 MHS patients - which group did these 11 patients belong to. It would also be useful to indicate how many of the 19 patients had masseter spasm. and were volatile agents continued in 13 of the suspected MH reactions. The numbers are not clear.
2. The authors have mentioned cardiac arrhythmias but have not indicated the type of arrhythmia. It would be useful to detail these.
3. 3 MHS patients had a positive dna test. (table 1) it would be useful to detail the mutations identified in these patients and also to indicate if the mutations were causative.
4. What is a significant metabolic acidosis.. The authors are referred to an article by Wappler Eur J Anaesth 2001; 18;632-652.
5. on page 4 line 8, what intraoperative procedures were the authors referring to
6. page 7, paragraph 3. This whole paragraph is unclear. Needs to be rewritten.
7. introperative courses of the general anaesthesia - what does that mean and the reference to ICU is not clear.
8. paragraph 3 of the discussion, last 2 lines - what does this mean. 'the presented collective of patients'
8. On page 7, 2nd page of the discussion - did the patients with a temperature increase only have MH confirmed by a positive muscle biopsy

Minor essential revisions
there are many particularly relating to the quality of English. The authors have not numbered the pages. I have numbered them 1-14 as obtained from the reprinted manuscript.

page 2,
3rd line delete pretend to be. replace with 'research indicates are"
4+5 lines ..succinylcholine use suggests there may be considerable....

Define IRB
line 13 documentation (no s)
line 15 ...124 patients were tested....
line 17 ...in a majority of cases masseter...
line 18 - arrhythmias

Page 3
line 2 - delete mostly
line 9 - ....apparently have lead to a decrease...
line 12 - delete is, ...seem to be less likely to induce...
line 14 - replace were with have been
line 17 - 'anesthetic'

Page 4
line 7 replace retraced with examined
line 9 - ...patients with a suspected MH...
line 12 - ...muscle tissue was excised from the medial vastus... should not just be m
line 21 - comma after patient, delete including replace with 'which includes'
line 22 - comma after temperature
line 24 - delete up

Page 5
line 5 - delete a - MH susceptibility could....
line 9...MH susceptibility in the family...
line 10 - creatine kinase
Para 3, line 2 delete 'a'
para 5 line 1, ...8 MH susceptible patients.....

page 6 (discussion)
line 5 - ...serius harm to the patients...
para 2, line 1 - masseter spasm delete 'a'
line 3 - jaw tightness is a better term than masseter spasm
line 4 - replace disposition with susceptibility
Line 7 - delete 'a'
line 9 - ...should be avoided during the further course.....
para 5 line 2 - delete 'an'

page 7(2nd page of discussion)
3rd pare line 2 ......sarcoplasmic reticulum calcium release...
In summary this paper demonstrates that MH reactions are still occurring when triggering anaesthetic agents are administered. It is a fairly standard publication with no exceptional features but with the changes suggested above should be published.

**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

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

**Declaration of competing interests:**

I declare that I have not competing interests.