Reviewer's report

Title: Evaluation of suspected Malignant Hyperthermia events during anaesthesia

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Reviewer: Joseph R Tobin

Reviewer's report:

The authors present their analysis of patients referred for diagnostic testing for MH susceptibility over a timeframe of 2007-2011.

The hypothesis that modern volatile anesthetics are less potent triggers is introduced in the background and referring to reference 5. This has been disputed by Japanese investigators published in Anesthesia and Analgesia in 2012. MH is still relevant to anesthesiologists today. Genetic analysis reveals far more abnormalities than previously described.

In this manuscript, 124 patients were referred to this one center (Univ of Wuerzburg) over five years. This probably underrepresents the actual number of patients who had clinical signs of MH but were never referred. Of the 124 patients, 21 were determined to be MH susceptible and 20 patients were classified as MH equivocal.

Although the use of succinylcholine in the patients is reported, the actual exposure to which volatile anesthetic and the MAC dose used are not reported. The authors cannot conclude whether more modern anesthetics are associated with less risk for an MH episode.

Major Compulsory Revision:

The authors do not make clear what is new or novel in their manuscript. Although it reads well, as a reviewer I do not note anything that has not been previously reported. Following the Background statement regarding 'modern volatile anesthetics that pretend to be less potent', is not discussed later in the manuscript. The analysis of MHS/MHN and MHE patients referred does not confer any new information about prevalence, or specificity of clinical signs as to whether MH is still a relevant issue. It is a relevant issue by the referral of 100+ patients to one center in a short interval of 5 years.

Level of interest: An article of limited interest

Quality of written English: Not suitable for publication unless extensively edited

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

I have no competing interests.