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Diagnosis of malignant hyperthermia

To the Editor:

Rosenberg and Gronert¹ have recently challenged the diagnosis of malignant hyperthermia (MH) as reported by Grinberg *et al.*² They believe that Grinberg *et al.* had insufficient data to support their contention that the episodes reported by them were MH. Rosenberg and Gronert feel that labeling a patient MH susceptible has far-reaching implications in the medical care of such patients and that the diagnosis should be made with care. It is difficult to disagree with them on this latter point.

However, to err the other way and fail to make the clinical diagnosis usually leads to a worse outcome than incorrectly labeling someone MH susceptible. There are still too many deaths occurring annually from MH. In many of these cases there has been sufficient data to make the presumptive diagnosis of MH, yet the anaesthetists fail to make the proper diagnosis for a variety of reasons. One of the most common reasons is an unwillingness to accept the diagnosis of MH. There are many anaesthetists who do not believe in the syndrome. All too frequently there is a willingness to place the blame on human error as a cause of the deaths. One of the reasons for this is that many authorities still insist that MH is a rare condition and should have a low priority in the differential diagnosis of complications of anaesthesia. In those areas of the United States where there is an emphasis on the diagnosis of MH, the mortality from it has fallen to almost zero. In other areas where there is hesitance to make an early diagnosis, the mortality rate is still quite high. These latter areas of the country seem to centre around spheres of influence which convince anaesthetists that MH has a low priority as a cause of death.

A second major reason for MH deaths is the unwillingness of anaesthetists to properly monitor their patients, particularly the body temperature. I don't understand the hesitance to use simple moni-

tors such as those used for body temperature when many anaesthetists will go to great lengths to insert Swan-Ganz catheters, arterial catheters, etc. In the majority of the cases of MH in which there has been a major complication, there has been evidence that the patient's temperatures were rising. To my amazement, some anaesthetists are still observing body temperatures rising to extraordinarily high levels without considering the diagnosis of MH.

MH is a clinical syndrome. All of the diagnostic techniques have been developed from patients or animals who developed the clinical syndrome. To my knowledge no one has developed a test which can assure the diagnosis of MH. Until the supporters of the muscle biopsy prove that they can accurately make the diagnosis of MH in everyone, the diagnosis must be made on a clinical basis. Our primary goal must be to reduce the mortality and morbidity from MH. It is far better to overdiagnose MH than to underdiagnose it. To my knowledge there has never been a death from MH in a known susceptible patient when appropriate precautions have been used. The same cannot be said for the undiagnosed patient, or worse yet, the suspected susceptible patient who had a procedure performed without adequate precautionary measures.

Occasionally patients may be upset that they are labeled incorrectly. This is the exception rather than the rule. Usually they are more concerned that someone who is unfamiliar with MH will be taking care of them.

I am appalled at the number of anaesthetists who are unfamiliar with the MH clinical syndrome or do not even know that it exists. Likewise, it is generally not appreciated by those who are familiar with the syndrome that it is more likely to be seen and diagnosed in the postoperative period than in the operative period. In my opinion we need reports such as that by Grinberg *et al.* to help us further elucidate the diagnosis of MH and to bring it to the attention of the medical profession. I agree with them in their reply to Drs. Rosenberg and Gronert.

Daniel W. Wingard MD
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