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Current state of malignant hyperthermia in China mainland: a less optimistic reality

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To the Editor:

Malignant hyperthermia (MH) is a rare life-threatening condition which was first recognized by Denborough and Lovell(1) in Australia in 1960. Since then, it has been found to occur worldwide including in China, the most populous country in the world. In recent years, with MH-susceptible gene discovered in Chinese patients(2, 3) and increasing cases of MH reported, the traditional concept that Chinese people are rarely at risk of MH is unable to be justified. However, the current state of MH in China mainland is far from optimistic, in terms of underestimation of the incidence, poor diagnostic tests and lack of specific treatment.

First, the incidence of MH has long been underestimated. Since there isn't a national MH data base, case reports published on journals have been the exclusive resource for estimating the incidence of MH in China mainland, and the estimation was that 34 cases and 21 cases occurred during the year 1974 to 2004(4) and the year 2004 to 2008(5), respectively. However, case reports only represent part of the real number of MH because underreporting is common. Building a national data base to bring together MH data may be a choice to obtain a relatively true incidence of MH.

Second, MH patients are almost diagnosed on the basis of clinical manifestations, without specific laboratory tests to confirm them. Only one medical center in China mainland offers laboratory confirmation tests(2). However, the effect that one medical center can take seems to be rather limited when considering this country has the largest population and the third area in the world. Therefore, quite a number of MH-suspected individuals did not receive right treatment due to uncertain diagnoses.

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3 Third, there is no specific treatment for MH. The only known antidote to MH,
4 dantrolene, is still not available in Chinese market, although it has been widely used for
5 decades in western countries. Almost Chinese MH individuals were treated without
6 dantrolene and this may contribute to a high mortality rate up to 73.5%(4), even though
7 this rate has been reduced to less than 10% in western countries.
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10 We appeal that more attention should be paid to the reality of MH in China mainland.
11 A national data base should be established to reevaluate the incidence of MH.
12 Furthermore, efforts should be made to enable specific laboratory tests more accessible to
13 Chinese patients, and dantrolene should be available in Chinese market.
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