

Malignant Hyperthermia in distant relative

A 50 year old women, was booked for a minor hand procedure which can be quite reasonably done under a regional anaesthetic. The patient gave a history of malignant hyperthermia and reported with great anxiety that this was of great importance for avoiding general anaesthetics. It turned out that she had a distant (4th degree) relative who had tested positive for malignant hyperthermia in the past. No further details were available. Nevertheless, the extended family had taken this on board and has been avoiding GAs or having "trigger free" anaesthetics for some 15 years. The patient's mother (the 3rd degree relative) had had multiple anaesthetics without incidents, some before the history of MH occurred and some afterwards. The calculated risk for the patient of being MH positive would be at most 6.25% but in reality much less. What should be advised about management?

Discussion:- Giving a 'trigger-free anaesthetic' is no great challenge, but there is arguably a problem of inappropriate anxiety in the family, where the reality of the risk must be approaching the background population risk. Given the anxiety, it is suggested the appropriate way forward is to refer to the MH lab in Sydney (Children's Hospital Westmead) for further counselling/evaluation. If testing is considered to be indicated, their procedure is to find the closest relative to the index patient and to test them. Genetic testing has not proven to be as useful as was originally hoped, and is not useful for initial screening

Outcome:- Go ahead with surgery as planned using Regional or Trigger-free anaesthetic. Follow-up of MH issue should be referred to CHW but is non-urgent