Malignant Hyperthermia (MH)

In brief

Malignant hyperthermia is a rare pharmacogenetic condition that is induced by oversensitivity to halogenated inhalational anesthetics and muscle relaxant called succinylcholine. The reaction can be life-threatening during anesthesia. This oversensitivity has been found in multiple breeds and it is thought that dogs of all breeds may potentially be affected if carrying the predisposing mutation.

Clinical overview

If commonly used halogenated inhalational anesthetics and/or succinylcholine are used with an affected patient, the patient develops increased body temperature (hyperthermia), an excess of carbonic acid in the blood, acidosis, tachycardia or cardiac dysrhythmia and muscle rigidity. If untreated, the condition may lead to death.

References

Online database
Online Mendelian Inheritance in Animals, OMIA (http://omia.angis.org.au/), Faculty of Veterinary Science, University of Sydney; Feb 2013; OMIA 000621-9615.

Scientific articles


Disease severity
Moderate

Clinical signs
- Hyperthermia
- Hypercapnia
- Tachycardia
- Muscle rigidity

Mode of Inheritance
Autosomal Dominant

Results of the genetic test are reported as follows:
- Clear
- At risk

Mutation(s) found in:
All breeds