Malignant hyperthermia

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Overview

This condition is a rare inherited disorder in which a severe hypermetabolic state occurs as a reaction to inhaled anesthesia gases and/or the administration of succinylcholine chloride (Anectine). Symptoms include high temperature and strong muscle contractions. Though rare, it is sometimes fatal if untreated.

Incidence

- 1/30,000 patients
- More men than women
- More patients under age 50

Symptoms and Physical Findings

- Tachycardia
- Tachypnea
- Variable blood pressure
- Dysrhythmias
- Rigidity of the masseter (large jaw) muscle as well as generalized muscle contractions
- Acidosis
- Increasing body temperature
- Dark urine
- Cyanosis
- Decreased O2 saturation

Treatment

- Pre-procedure assessment that includes family history of muscle disorders, malignant hyperthermia or intraoperative death and injury, or personal history of heat stroke or dark-colored urine following surgery
- Cessation of the surgical procedure
- Discontinuation of the volatile agent and succinylcholine
- Hyperventilation with 100% oxygen at 10 L/minute
- Continuous cardiac monitoring
- Continuous core body temperature monitoring
- Cooling measures, such as cooling orogastric lavage, ice packs, cooled I.V. fluids, and a hypothermia blanket