

Sevoflurane/suxamethonium chloride

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Sudden death due to malignant hyperthermia in a child: case report

A 3-year-old boy experienced sudden death due to malignant hyperthermia during general anaesthesia induced with sevoflurane and suxamethonium chloride.

The boy was scheduled for numerous tooth extractions due to dental cavities under general anaesthetic. A consultation the day prior to the procedure revealed a right cheek swelling, and he was given an unspecified antibiotic. However, there were no contraindications to general anaesthesia noted at that point. The following day, general anaesthesia was induced with midazolam, sevoflurane [*route and dosage not stated*] oxygen, nitrous oxide and suxamethonium chloride 1 mg/kg [*route not stated*]. He was also given ketoprofen for analgesia, and IV glucose. About 45 minutes into the procedure, cardiac rhythm disturbances occurred, and his temperature increased to 37.4°C.

The boy was administered lidocaine with resolution of the cardiac disturbances. His HR decelerated, and he was given atropine. However, his blood oxygen saturation fell, and muscle rigidity in the lower extremities was noted, along with an abnormal positioning of the feet. His temperature reached 40°C and he was cooled with ice packs. Cardiac arrest ensued. Malignant hyperthermia was suspected by the anaesthesiologist, and an ambulance was called. Resuscitation was unsuccessful. A postmortem determined the cause of death as shock, most likely due to malignant hyperthermia.

Author comment: "*Malignant hyperthermia is characterized by an extremely fast rise in body temperature during procedures performed under general anaesthesia, especially when halogen-containing inhalation agents or succinylcholine (suxamethonium) chloride are employed*".