Suxamethonium chloride

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Hyperkalaemia, ventricular tachycardia and unmasking of Gordon's syndrome in a child: case report

A 6-year-old boy developed severe hyperkalaemia and ventricular tachycardia after receiving suxamethonium chloride [succinylcholine chloride] for anaesthesia for dental surgery; Gordon's syndrome was subsequently diagnosed.

The boy received suxamethonium chloride [dosage not stated] with thiopental sodium, halothane, nitrous oxide and alcuronium for anaesthesia induction and maintenance. During surgery, his HR increased from 110 to 160 beats/min, and he developed ventricular tachycardia with critical pulseless hypotension.

The boy was successfully resuscitated with defibrillation and atropine administration, and fully recovered from the anaesthesia. Laboratory investigations during anaesthesia showed serum levels of potassium at 8.2 mol/L (normal 3.6–5.5) and creatinine kinase at 1048–2066 U/L (< 220), a pH of 7.29 (7.35–7.44), and acidosis.

Subsequent investigations revealed type II pseudohypoaldosteronism and Gordon's syndrome. The boy fully recovered after a low-potassium diet and a thiazide diuretic were initiated

Author comment: "The hyperkalaemia of our patient was aggravated by succinylcholine."

Puura A, et al. Gordon syndrome and succinylcholine. Journal of Inherited Metabolic Disease 28: 1157-1158, No. 6, Dec 2005 - Finland 8010