

Suxamethonium chloride

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**Abnormal neuromuscular phase II block and prolonged neuromuscular blockade : case report**

A 41-year-old man developed abnormal neuromuscular phase II block and prolonged neuromuscular blockade following suxamethonium chloride [succinylcholine] administration.

The man who had a history kidney transplant underwent emergency percutaneous nephrectomy of the kidney transplant. He was reported to have been taking sulfamethoxazole, trimethoprim, prednisone, mycophenolate mofetil and tacrolimus. On the day of the procedure rapid sequence induction was carried out with an injection of suxamethonium chloride 80 mg [*route not stated*] and thiopental sodium. Sufentanil and desflurane were used for maintenance of anaesthesia and cefazolin was given as surgical prophylaxis. The patient's neuromuscular blockade was monitored using the "train of four" on the thumb adductor which showed the first response after two hours of administration of suxamethonium chloride. Subsequently the second response was not apparent until three hours, whereas in the end a total period of six hours was required for the progressive appearance of the third and fourth responses to the train of four (with a T4/T1 ratio of 90%). Sedation was maintained while waiting for a spontaneous recovery from neuromuscular blockade.

After sedation ended the patient extubated. A postoperative biological test showed a low plasma butyrylcholinesterase activity and a mutation of the BCHE gene in the homozygous form was revealed.

**Author comment:** *We report here the case of an abnormal neuromuscular block classed as Phase II, associated with a six-hour prolonged neuromuscular blockade after a single injection of succinylcholine [suxamethonium chloride].*

Jurkolow G, et al. Prolonged phase II neuromuscular blockade following succinylcholine administration. *Annales Francaises d'Anesthesie et de Reanimation* 33: 176-177, No. 3, Mar 2014 [French; summarised from a translation] - France

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