

Only for the use of medical professionals

Rapilax[®]

Suxamethonium Chloride

Description

Rapilax[®] is a depolarizing skeletal muscle relaxant. It combines with the cholinergic receptors of the motor end plate to produce depolarization. This depolarization may be observed as fasciculations. Subsequent neuromuscular transmission is inhibited so long as adequate concentration of Suxamethonium Chloride remains at the receptor site. Onset of flaccid paralysis is rapid (less than 1 minute after IV administration), and with single administration lasts approximately 4 to 6 minutes.

Indication

Rapilax[®] is indicated

- as an adjunct to general anesthesia, to facilitate tracheal intubation, and to provide skeletal muscle relaxation during surgery or mechanical ventilation.
- in various orthopedic manipulations and endoscopic examinations.
- to reduce the intensity of muscular contractions associated with pharmacologically or electrically-induced convulsions.

Dosage and administration

The dosage of Rapilax[®] should be individualized and should always be determined by the clinician after careful assessment of the patient. The dose is dependent on body weight, the degree of muscle relaxation required and the response of individual patients.

By intravenous injection: Rapilax[®] injection is given intravenously over 10 to 30 seconds. The average dose required to produce neuromuscular blockade and to facilitate tracheal intubations is 0.6 mg/kg (range 0.3-1.1 mg/kg). This dose produces muscle relaxation in about 60 seconds and has a duration of approximately 4 to 6 minutes. Larger doses produce more prolonged muscle relaxation.

By intravenous infusion: The dose of Rapilax[®] administered by infusion depends upon the duration of the surgical procedure and the need for muscle relaxation. The average rate for an adult ranges between 2.5 and 4.3 mg per minute; max 500 mg/hour. Solutions containing from 1 to 2 mg per mL Suxamethonium Chloride diluted in 5% dextrose solution have commonly been used for continuous infusion.

Pediatrics: For emergency tracheal intubation or in instances where immediate securing of the airway is necessary, the IV dose of Rapilax[®] is 2 mg/kg for infants and small children (under one year); for older children and adolescents (over one year) the dose is 1 mg/kg.

Intramuscular Use: If necessary, Rapilax[®] may be given intramuscularly to infants, older children, or adults when a suitable vein is inaccessible. A dose of up to 3 to 4 mg/kg may be given, but not more than 150 mg total dose should be administered by this route. The onset of effect of Suxamethonium Chloride given intramuscularly is usually observed in about 2 to 3 minutes.

Use in pregnancy & lactation

Pregnant patients may be expected to show increased sensitivity to Suxamethonium Chloride, because plasma cholinesterase levels are decreased by approximately 24% during pregnancy and for several days postpartum. Therefore, Suxamethonium Chloride should be given to a pregnant woman only if clearly needed. Under normal conditions the quantity of drug that enters fetal circulation after a single dose of 1 mg/kg to the mother should not endanger the fetus. It is not known whether Suxamethonium Chloride is excreted in human milk. Caution should be exercised following Suxamethonium Chloride administration to a nursing woman.

Side-effects

Muscle pains are frequently experienced after administration of Suxamethonium Chloride. It also may cause prolonged apnea. Hypersensitivity reactions, including anaphylaxis, may occur in rare instances. The administration of Suxamethonium Chloride may be followed by bradycardia, often associated with cardiac arrhythmia. Sinus tachycardia and hypertension has occurred after the continuous infusion of Suxamethonium Chloride. Myoglobinuria has been reported either alone or associated with malignant hyperexia.

Contraindications

Suxamethonium Chloride is contraindicated in persons with personal or familial history of malignant hyperthermia, skeletal muscle myopathies, and known hypersensitivity to the drug. It is also contraindicated in patients after the acute phase of injury following major burns, multiple trauma, extensive denervation of skeletal muscle, or upper motor neuron injury, because Suxamethonium Chloride administered to such individuals may result in severe hyperkalemia which may result in cardiac arrest. The risk of hyperkalemia in these patients increases over time and usually peaks at 7 to 10 days after the injury. The risk is dependent on the extent and location of the injury. The precise time of onset and the duration of the risk period are not known.

Precautions

When Suxamethonium Chloride is given over a prolonged period of time, the characteristic depolarization block of the myoneural junction (Phase I block) may change to a block with characteristics superficially resembling a nondepolarizing block (Phase II block). When Phase II block is suspected in cases of prolonged neuromuscular blockade, positive diagnosis should be made by peripheral nerve stimulation prior to administration of any anticholinesterase drug. Suxamethonium Chloride should be employed with caution in patients with fractures or muscle spasm because the initial muscle fasciculations may cause additional trauma. Suxamethonium Chloride may cause a transient increase in intracranial pressure; however, adequate anesthetic induction prior to administration of Suxamethonium Chloride will minimize this effect. Suxamethonium Chloride may increase intragastric pressure, which could result in regurgitation and possible aspiration of stomach contents. Neuromuscular blockade may be prolonged in patients with hypokalemia or hypocalcemia. Suxamethonium Chloride should be used carefully in patients with reduced plasma cholinesterase activity.

Drug interactions

Drugs which may enhance the neuromuscular blocking action of Suxamethonium Chloride include: promazine, oxytocin, aprotinin, certain non-penicillin antibiotics, quinidine, adrenergic blockers, procainamide, lidocaine, trimethaphan, lithium carbonate, magnesium salts, quinine, chloroquine, diethylether, isoflurane,

desflurane, metoclopramide, and terbutaline. The neuromuscular blocking effect of Suxamethonium Chloride may be enhanced by drugs that reduce plasma cholinesterase activity (e.g., chronically administered oral contraceptives, glucocorticoids, or certain monoamine oxidase inhibitors) or by drugs that irreversibly inhibit plasma cholinesterase.

Over dosage

Over dosage with Suxamethonium Chloride may result in neuromuscular block beyond the time needed for surgery and anesthesia. This may be manifested by skeletal muscle weakness, decreased respiratory reserve, low tidal volume, or apnea. The primary treatment is maintenance of a patent airway and respiratory support until recovery of normal respiration is assured. Depending on the dose and duration of Suxamethonium Chloride administration, the characteristic depolarizing neuromuscular block (Phase I) may change to a block with characteristics superficially resembling a nondepolarizing block (Phase II).

Pharmaceutical precautions

Suxamethonium Chloride Injection must be kept in the fridge between 2°C- 8°C. Do not freeze.

Presentation

Rapilax® IV injection: Each 2 ml ampoule contains Suxamethonium Chloride BP 100 mg.

Package quantities

Rapilax® injection: Carton of 10 ampoules of 2 ml.

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