

***Anesthesiology Rounds***  
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**Succinylcholine in modern anesthesia**  
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**Objectives:**

The purpose of this issue is to:

- Present the main complications of succinylcholine and their underlying mechanisms of action;
- Determine which complications are diminished or eliminated by precurarization;
- Summarize the pharmacological characteristics of succinylcholine;
- Review the effects of precurarization on fasciculations and myalgia;
- Make recommendations on the type of neuromuscular blocking agent to be used for precurarization, the dose, and the time of injection.

Even though alternatives are more plentiful than they were, succinylcholine remains the neuromuscular blocking agent of choice in certain situations, particularly in emergency cases, and is still indicated in many others, notably in short-duration elective surgery. The purpose of this article is to summarize the pharmacological properties of succinylcholine, as well as its side effects and contraindications. The different ways of using succinylcholine are reviewed with an emphasis on the optimal use of precurarization.

**Questions: (Only 1 response is correct)**

1. Succinylcholine produces all of the following effects, except:
  - a. Activation of presynaptic receptors
  - b. Depolarization of postsynaptic receptors
  - c. Hyperkalemia
  - d. A competitive-type block
  - e. An increase in the baseline tone in certain muscles
  
2. Among the expected effects of precurarization before succinylcholine, there is:
  - a. An increase in the duration of action of succinylcholine
  - b. Protection against succinylcholine-induced bradycardia
  - c. A decrease in catecholamine release
  - d. An absence of hyperkalemia
  - e. Effective prevention of myotonic manifestations

3. What dose of rocuronium is equivalent to 3 mg of d-tubocurarine?
- a. 1 mg
  - b. 2 mg
  - c. 3 mg
  - d. 4 mg
  - e. 5 mg
4. In the scientific literature, more symptoms of muscle weakness were noted with rocuronium and vecuronium than with d-tubocurarine when used in precurarization because:
- a. D-tubocurarine has a greater margin of safety
  - b. The time interval between the d-tubocurarine and succinylcholine was shorter
  - c. Chemically, d-tubocurarine belongs to a different class of drugs
  - d. D-tubocurarine spares respiratory muscles
  - e. The doses of d-tubocurarine were comparatively lower.

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