Succinylcholine Dosing for Obese Adolescents

Results of studies in adults have suggested that succinylcholine (SCH) dosing should be based on actual, not ideal, body weight. Researchers evaluated SCH dosing in obese adolescents in a study of 30 children with body-mass indexes above 30 kg/m² who were between 9 and 15 years of age.

Patients were anesthetized with thiopental, fentanyl, and nitrous oxide and then received varying doses of SCH followed by neuromuscular testing. Using a complex series of calculations, the authors showed that weight in kilograms was as good as body surface area and better than body-mass index for calculating the correct dose of SCH, and that the dosage should be based on actual weight, not lean or ideal body weight.

Comment: This analysis shows clearly that succinylcholine dosing for obese adolescents should be based on actual body weight, which is more easily estimated or obtained than either body-mass index or ideal body weight. When SCH is used for ED rapid-sequence intubation, a dose of 1.5 mg/kg, with a generous estimate of actual body weight, will yield the best results.

— RM Walls, MD

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