Rapid-Sequence Intubation Better Than Etomidate Alone for Prehospital Intubation

More support for RSI versus sedation-assisted intubation

Use of rapid-sequence intubation (RSI) in the prehospital setting is controversial. In a prospective crossover trial, these authors compared laryngoscopy conditions and intubation success rates with etomidate-only (0.3 mg/kg) intubation and RSI using etomidate (same dose) plus succinylcholine (1.5 mg/kg).

Each of the two regimens was used for 6 months in two medical helicopters crewed by the same staff. In the 24 patients in the etomidate-only group, the initial dose was correct on average, but some patients received doses that were greater than or less than the recommended dose (range, 0.13–0.53 mg/kg). Three patients in the etomidate-only group required additional etomidate, and 12 proceeded to RSI. Of the 25 patients in the initial RSI group, 1 required additional medication. Laryngoscopy conditions were significantly better in the RSI group than in the etomidate-only group, as measured by the Laryngoscopy Grading Scale (good or acceptable conditions in 79% vs. 13%), mean percentage of glottic opening (60% vs. 12%), and average global intubation difficulty scores (3.0, moderate vs. 4.7, difficult to very difficult). Orotracheal intubation was successful in 92% of RSI subjects and in 25% of etomidate-only subjects. Jaw clenching was noted in eight (33%) etomidate-only patients.

Comment: These results provide weak evidence that RSI is safer and more effective than intubation using etomidate only. Although the number of patients was small and the study was not blinded, these results are in agreement with previous blinded studies of intubation using RSI versus that using only the induction dose of a sedative agent (see JWEM Nov 26 2003).

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