Fiberoptic Intubation after Combitube® Placement

The esophageal-tracheal Combitube (ETC) has been advocated for use in prehospital care and in cases of failed intubation. Although effective, the ETC does not protect against aspiration, so replacement with an endotracheal tube (ETT) is desirable.

Researchers in Israel evaluated nasal fiberoptic insertion of an ETT after successful ventilation with an ETC under general anesthesia, and compared the procedure in spontaneously breathing and mechanically ventilated patients. Forty healthy, adult, elective anesthesia patients underwent general anesthesia with fentanyl, propofol, nitrous oxide, and isoflurane. The 20 patients randomized to mechanical ventilation then received a paralytic dose of vecuronium. After ventilation with the ETC, the proximal balloon was deflated slightly to permit nasal cannulation with the fiberoptic bronchoscope. The scope was passed into the trachea, and the endotracheal tube was inserted.

All patients were successfully ventilated with the ETC. Intubation was successful in 18 spontaneously breathing and 15 paralyzed patients. There were no significant complications. Nine of the 33 intubations were possible only after the ETC was withdrawn 1 cm.

Comment: This study shows that an ETT can be passed successfully using a fiberoptic bronchoscope in approximately 80% of cases, without interrupting ventilation with the ETC. The greater success in spontaneously breathing patients is probably due to easier identification of anatomic structures with the scope.

— RM Walls, MD

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