Intubation in the Lateral Position: Tube or LMA?

Certain emergency circumstances, such as entrapment or impalement with a weapon, require that intubation be conducted with the patient in the lateral position, but little is known about how this position affects airway anatomy or intubation success. To evaluate lateral intubation and the role of the laryngeal mask airway (LMA) in such cases, investigators randomized 69 patients (American Society of Anesthesiologists class 1) undergoing elective general anesthesia who did not have predicted difficult airways to undergo airway management in the lateral position with either oral endotracheal intubation or an LMA.

After induction of anesthesia, each patient's laryngoscopic view was graded by direct laryngoscopy, with and without cricoid pressure, first with the patient in the optimal supine sniffing position and then in the left lateral position. A different operator then managed the airway by inserting either an LMA or an endotracheal tube (under direct laryngoscopy) while cricoid pressure was applied.

The laryngoscopic view deteriorated in 35% of patients when they were turned to the left lateral position and improved in none. Eight of 39 intubations (21%) were unsuccessful in the left lateral position, as compared with 1 of 30 LMA placements (3%) -- a significant difference. Time to achieve airway management was significantly longer for intubation than for LMA placement (mean, 39 vs. 26 seconds).

Comment: Intubation in the lateral position is not often required, but these data suggest that the lateral position is associated with a higher incidence of failure, even in patients without predicted difficult airways. Whether in the emergency department or prehospital setting, we can assume that intubation in any position other than the familiar supine sniffing position carries a higher risk of failure, with resultant requirement for a rescue device, such as the LMA.

— Ron M. Walls, MD, FRCPC, FACEP, FAAEM

Published in Journal Watch Emergency Medicine December 21, 2005

CITATION(S):