To Sellick or Not to Sellick?

A study of magnetic resonance images demonstrates occlusion of the hypopharynx by Sellick maneuver but does not prove that the maneuver has clinical value.

Routine use of Sellick maneuver (posterior displacement of the cricoid cartilage to occlude the alimentary tract) during rapid sequence intubation is no longer recommended because of inadequate proof of benefit and evidence that it might make intubation or ventilation more difficult (JW Emerg Med Jun 1 2000 and JW Emerg Med Jun 29 2007). To determine whether and how the maneuver occludes the alimentary tract, researchers obtained magnetic resonance images of 24 nonsedated volunteers with and without Sellick maneuver in three head and neck positions (sniffing, head extended, neutral).

Axial images showed a reduction in diameter of the postcricoid hypopharynx from an average of 7.3 mm without the maneuver to 4.7 mm with the maneuver in each position. The compressed diameter was less than the estimated wall thickness (6.1 mm) of the hypopharynx at this level, indicating complete occlusion.

Comment: An earlier study showed that the esophagus often slips left or right when Sellick maneuver is applied, thus avoiding compression by the cricoid cartilage. This study shows that the hypopharynx behind the cricoid cartilage was effectively occluded in these nonsedated patients, regardless of whether lateral displacement occurred at other levels of the esophagus. This finding's clinical meaning is not clear, nor does it help us decide whether to use Sellick maneuver. Editorialists express divergent opinions regarding the merit of the maneuver. Sellick maneuver should be considered optional until we have outcome data that support its use. However, Sellick maneuver is probably worthwhile during bag-mask ventilation, because previous research has shown that it minimizes flow of gases to the stomach.

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