

CORRESPONDENCE

Anesthesiology
78:989, 1993
© 1993 American Society of Anesthesiologists, Inc.
J. B. Lippincott Company, Philadelphia

Safe Nasogastric Tube Placement in a Patient with a Basal Skull Fracture

To the Editor:—Intracranial placement of a nasogastric or an endotracheal tube is a potentially catastrophic complication that has been described in patients with basal skull fractures.¹⁻³ We describe a technique in which the fiberoptic bronchoscope was used for placement of a nasopharyngeal airway through which a nasogastric tube was inserted in a patient with a basal skull fracture.

Report of a Case

A 17-year-old male presented to the emergency room for the treatment of blunt trauma to the face as a result of an assault with a baseball bat. The patient was in moderate distress due to traumatic pain but was alert and oriented to person, place, and time without respiratory distress. Physical examination revealed a fractured mandible and a bloody otic discharge. The nose and other facial structures appeared intact. Basal skull fracture was confirmed by computed tomography. Cervical spine x-rays showed no fractures or dislocations. No other associated trauma was noted on physical or radiologic examinations.

The patient was brought to the operating room for emergency treatment of a displaced mandibular fracture. Since postoperative mandibular immobilization was necessary, the nasotracheal approach was selected for control of the airway. A nasogastric tube also was considered necessary for postoperative decompression of the stomach.

The trachea was intubated *via* the nose with the patient awake using a fiberoptic bronchoscope (5F, Model FB19D, Pentax Corporation, New York). Following tracheal intubation and verification of movement of extremities upon command, the patient underwent general anesthesia. After surgical anesthesia was achieved, an 8F nasopharyngeal airway was placed over the flexible bronchoscope using a bacteriostatic surgical lubricant. The bronchoscope was then slowly advanced through the nares into the oropharynx. A clear view of the mucosa was ensured at all times during the bronchoscope advancement. After confirmation of the correct oropharyngeal position, the nasopharyngeal airway was advanced over the bronchoscope. The bronchoscope was then removed and a 16-G nasogastric tube was placed through the nasopharyngeal airway. When the tip of the na-

so gastric tube emerged in the posterior oropharynx, Magill forceps were used to direct it into the esophagus. The nasopharyngeal was then removed from the nose and cut off. The nasogastric tube functioned well intraoperatively and postoperatively.

We believe that the use of the fiberoptic bronchoscope for nasogastric tube placement is useful in patients with basal skull fractures without mid-face or nasal trauma. A limitation of this technique would be the inability to directly visualize the nasopharynx, which may occur with the presence of blood, secretions, or mechanical obstructions. The insertion of a nasopharyngeal airway over a fiberoptic bronchoscope with continuous observation of the nasal mucosa, followed by a nasogastric tube placement, should be considered for selected patients with basilar skull fractures.

Eugene G. Lipov, M.D.
Assistant Professor

Mitchel B. Sosis, M.D., Ph.D.
Assistant Professor

Department of Anesthesiology
Rush-Presbyterian-St. Luke's Medical Center
1653 West Congress Parkway
Chicago, Illinois 60612

References

1. Galloway DC, Grudis J: Inadvertent intracranial placement of a nasogastric tube through a basal skull fracture. *South Med J* 72: 240-241, 1979
2. Gustavsson S, Albert J, Forsberg H, Ryrbert CH: The accidental introduction of the nasogastric tube into the brain: Case report. *Acta Chir Scand* 144:55-56, 1978
3. Patrick MR: Airway Manipulations, Hazards and Complications of Anesthesia. Edited by Taylor T, Mayor E. New York: Churchill Livingstone, 1987 pp 329-355

(Accepted for publication February 1, 1993.)

Anesthesiology
78:989-990, 1993
© 1993 American Society of Anesthesiologists, Inc.
J. B. Lippincott Company, Philadelphia

Epidural Versus Intravenous Fentanyl

To the Editor:—Recently Sandler *et al.*¹ reported that equal amounts of fentanyl were required to treat post-thoracotomy pain when fentanyl was given through a lumbar epidural catheter or intravenously. They contrasted their findings with a recent study of ours in which we showed that significantly less fentanyl was required

when administered on a patient-controlled analgesia (PCA) basis through a lumbar epidural catheter as compared to PCA fentanyl given intravenously.²

Sandler *et al.* suggested that one reason for the difference in our respective studies was that their patients did not achieve good an-