

Orotracheal intubation for a patient with a protruding foreign body in the posterior neck

V. ROZENTSWEIG¹, N. WEKSLER¹, and A.R. SHAPIRA²

¹Division of Anesthesiology and ²Department of Surgery A, Department of Critical Care Medicine, Soroka University Hospital, Faculty of Health Sciences, Ben Gurion University of the Negev, Beer Sheva 84101, Israel

To the editor: A common problem that anesthesiologists have to deal with in the trauma patient with upper back and neck injuries is the difficulty in changing the position of the head and neck. Such trauma may be caused by a stabbing injury, gunshot wound, road accident, or fall from a height. We present a simple method for oro-tracheal intubation in a patient with a knife embedded in the posterior neck.

A moderately obese, 40-year-old man was brought to the emergency department with a stab injury on the posterior neck, half a centimeter to the left of the midline at the level of C3–4. On examination, a protruding 12-cm blade was identified at the site of the injury. The patient was fully alert, agitated, but hemodynamically stable. It was decided to perform surgical exploration, because penetration in the deep layers was demonstrated radiologically. The patient was laid on the operating table with his head on the headrest generally used for neurosurgery and with the knife protruding (Fig. 1). After induction of anesthesia with thiopental 5 mg·kg⁻¹, fentanyl 0.1 mg, and succinylcholine 1.5 mg·kg⁻¹, oro-tracheal intubation was performed without any difficulty. Surgical exploration revealed the knife tip in close approximation to the left carotid artery without damaging it. The knife was withdrawn without difficulty.

Although penetrating injury to the neck comprises only 5% to 10% of all trauma cases, there are still many controversies regarding the diagnosis and appropriate treatment of these injuries [1–5]. Since the neck contains important anatomic structures of the respiratory, cardiovascular, and nervous systems [5], it is recommended that any cervical injury crossing the platysma demands surgical exploration. Emergency surgical intervention mandates endotracheal intubation, since these patients have delayed gastric emptying and are prone to develop pulmonary aspiration of gastric

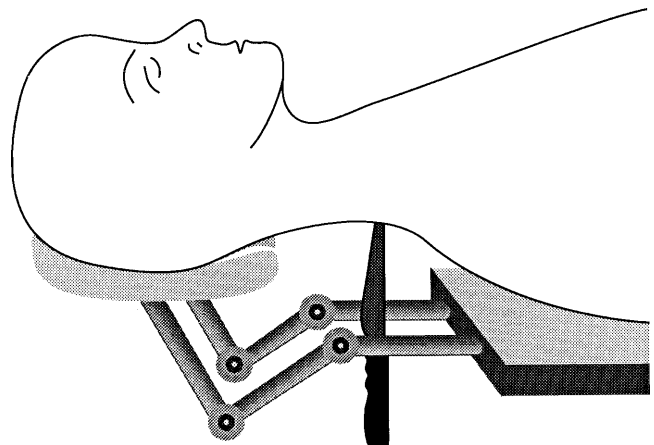


Fig. 1. Schematic illustration of the patient. The application of the Gardner headrest enabled intubation to be performed safely in a patient with a protruding foreign body in the posterior neck

contents. Fiberoptic intubation can be an alternative technique for oro-tracheal intubation in patients with unstable cervical spine or abnormal upper airway anatomy [6]. There are, however, certain pitfalls in the use of fiberoptic laryngobronchoscopy. First, the application of this technique requires a skilled operator. Second, the patient's cooperation is essential for clear and rapid visualization of the vocal cords. Third, continuous bleeding can impair visualization of the vocal cords. Fiberoptic intubation was impossible to perform in our patient, because he was restless and uncooperative and he did not accept the use of fiberoptic intubation.

We decided not to try tracheal intubation with the patient in the lateral position, because in case of loss of airway patency we have to place the patient urgently in the supine position, which may aggravate the impending neurologic or vascular injury. Therefore, we decided to use the Gardner headrest for performing tracheal intubation. The Gardner headrest generally used in neurosurgery can greatly facilitate the performance of tracheal intubation in the presence of protruding foreign bodies of the posterior neck without doing additional damage to the vascular or nervous structures.

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Address correspondence to: V. Rozentsweig

(Received for publication on July 22, 1998; accepted on June 7, 1999)