

## Lateral Fiberoptic Intubation for a Morbidly Obese Patient with Undergoing Maxillofacial Surgery

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### ABSTRACT

It has been recognized that the fiberoptic bronchoscope intubation is appropriate solution to manage the difficult airway. This maneuver might be usually applied in supine position during awake or during sedated condition with spontaneous breathing under cooperation of patients. However, there are some cases that patients cannot be positioned because of anatomical problem, such as morbidly obesity and/or tumor or edema in soft tissue of pharyngeal. It has been suggested that fiberoptic bronchoscope intubation in lateral position might be alternative method to mimic respiratory complication. We have experienced the case of fiberoptic bronchoscope intubation in lateral position. We attempted fiberoptic intubation for severe obesity patient under sedation in the left lateral position, using a flexible fiberoptic bronchoscope in lateral position; the tracheal tube was successfully nasally intubated.

**Keywords:** Fiberoptic intubation; Lateral position; Obesity

### CASE REPORT

A 17-year-old man weighing 164.4 kg (height 184.6 cm body mass index of 48.2 kg m<sup>2</sup>) with ameloblastoma was scheduled for tumorectomy.

Because we predicted the significant difficulty to maintain airway patency during induction of anesthesia due to severe obesity and location of tumor by evaluation of CT imaging, we had planned to perform FOB-guided nasotracheal intubation following moderate sedation with midazolam, propofol and fentanyl while maintaining spontaneous breathing.

The patient was positioned in left lateral posture with coma position on the operation table. Moderate sedation was induced using propofol plus fentanyl following to small dose of midazolam (2 mg) under standard monitoring vital signs of non-invasive blood pressure, heart rate and oxygen saturation.

BIS monitor was also used to measure depth of sedation. Propofol sedation was induced with intravenous propofol (Diprivan; Astra Zeneca, Nether Alderley, UK), administered via a Diprifusor (Astra Zeneca) target controlled infusion system (Terumo TCI pump TE371, Tokyo, Japan).

The system calculated the effect site concentration on the basis of a three-compartment pharmacokinetic algorithm. The propofol target blood concentration was increased and kept constant between 1.5 and 2.0 µg/ml to obtain an adequate level of sedation. Fentanyl of 50 µg was also induced for pain management.

After obtaining of adequate sedative level, nasal cavity was disinfected with iodine and anesthetized with lidocaine gel. Thereafter, a well-lubricated 6 mm ID nasopharyngeal airway was inserted in the left nostril to confirm smooth passage and small cannula was inserted into nasal airway to give appropriate anesthesia into pharyngeal region.

Subsequently, 7.5 mm ID nasotracheal tube was inserted into left nostril and FOB-guided intubation was successfully performed (Figure 1) [1-5].

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