

**Titel of study:** Anesthesia With Endotracheal Laser Tube

**Clinical Trials.gov ID:** NCT03044418

**Protocol ID:** 6419

## **Protocol**

*Preparation of endtracheal tube before anesthesia:* The endotracheal tube is made of polyvinylchloride (PVC). PVC tube wrapped material is an aluminum tape with adhesive back. Wrapping starts from junction of tube and proximal end of cuff with compliance of sterility rules. Wrapping in spiral is with scalpel to 60 degrees and 50% overlap layer. The intubation is done with this special endotracheal tube and its cuff was inflated with saline and methylene blue mixture.

*Anesthesia:* Midazolam 7.5 mg is administered orally 1.5 h before induction of anesthesia. Ringer lactate is used as background infusion at the rate of 5 mL/kg/h during anesthesia. Electrocardiography (ECG), non-invasive blood pressure (NIBP), heart rate, peripheral capillary oxygen saturation (SpO<sub>2</sub>), and end-tidal carbon dioxide are continuously monitored intraoperatively. Anesthesia is induced with fentanyl, propofol and atracurium. After five minutes of preoxygenation with 100% oxygen, an initial dose of fentanyl 1 µg/kg is administered intravenously (IV). An intubation dose of 0.5 mg/kg IV atracurium is administered to all patients. The repeat dose of atracurium 0.15 mg/kg is given every 30 minutes during anesthesia. Anesthesia is maintained with propofol and fentanyl. Fresh gas flow (FGF) is 2 L/min with the <30% FiO<sub>2</sub> during anesthesia. Before extubation an atropine-neostigmine mixture (1.0 and 2.5 mg) is administered as neuromuscular block reversal to all patients. Diclofenac and nalbuphine are administered as rescue analgesics.

*Safety and protection:* Eye of the patient should be taped closed and covered with opaque saline swabs. Eye protection for the working personals (surgeon, anesthesiologist and assistants) is necessary and important too, e.g. safety goggles and specific lens in the microscope. Working personals must use a special efficient smoke mask. Surgical drapes made of flame resistant or waterproof material.

Our hypothesis is that this special PVC tube with aluminum tape is safety during anesthesia of endolaryngeal laser surgery. Primary outcome is the number of side effects of anesthesia with a special laser tube.

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