

## Double gauze bite block for orotracheally intubated patients

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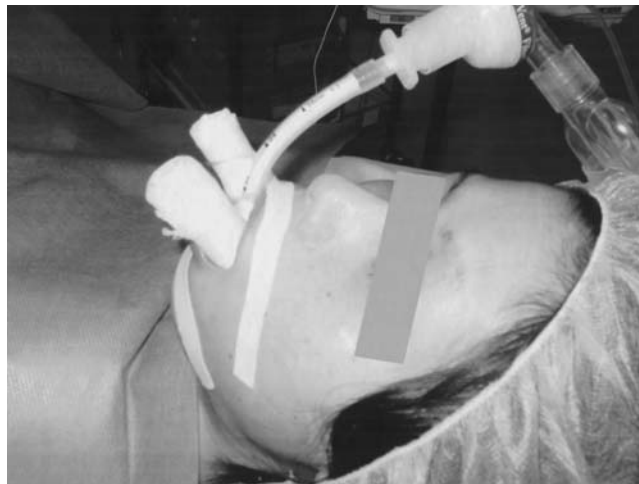
Routine premedication including atropine sulfate for surgical patients was abolished 5 years ago in our hospital to allow patients to walk into the operating room [1]. Since then, there has been a problem due to spillage of oral secretions from orotracheally intubated patients during surgery.

To absorb the spillage, we started using two gauze rolls as a bite block (double gauze bite block) 2 years ago. Since then, more than 700 orotracheally intubated patients (15–88 years of age) were managed using a double gauze bite block. We have now evaluated the usefulness, merits, and demerits of this method.

The gauze bite block is composed of tightly rolled gauze swabs similar to those previously recommended for use with the laryngeal mask [2]. The rolls are inserted along the tube on both sides and pushed in, leaving about 2–4 cm protruding from the mouth (Fig. 1). We do not tape the end of the roll to the skin because these rolls are unlikely to slip from their original position. Although we cannot aspirate the oral secretion through the air channel as we do when using a rubber bite block with a suction port, we can aspirate secretions by attaching a suction catheter to the gauze roll. Postoperatively, the gauze rolls are removed from the mouth and discarded together with the tracheal tube when patients are able to open their mouth in response to a command.

We weighed 20 gauze rolls heavily soaked with oral secretion during surgery. The absorbed content ranged from 16 to 22 g per roll. The absorbance capacity of water ranged from 20 to 25 ml per roll when we put 20 gauze rolls into water.

To date, there has not been any tube obstruction due to biting in patients managed with the double gauze bite block. Biting during emergence from anesthesia, common among young patients, was not strong enough to crush two gauze rolls (one roll is too soft to prevent tube obstruction by biting [3]).



**Fig. 1.** Gauze rolls are inserted along the tube on both sides and pushed in, leaving about 2–4 cm protruding from the mouth

We should also indicate some problems caused by this method. At the beginning of using a double gauze bite block, several female patients complained of postoperative tongue pain because gauze rolls were forcibly pushed deep into the narrow oral space. Unnecessarily deep insertion should be avoided. Mucosal ablation of the lip occurred in two patients during extubation, even though rolled gauze is thought to pose little risk of damaging the tube, lip, tongue, tooth, or oral cavity [4]. In both two cases atropine sulfate had been given during surgery, and the gauze roll had become firmly attached to the patient's lip. We also had a patient who vomited during surgery. We had difficulty disposing of the vomited matter trapped in the esophagus because the oral cavity was capped by two gauze rolls, which were bitten by the patient and difficult to remove.

We believe the double gauze bite block is sufficient to ensure a bite block effect and is useful for absorbing spilled oral secretion in orotracheally intubated patients. However, it was potentially problematic in some patients, especially those at risk of regurgitation.

**References**

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This study was presented at the 24th annual meeting of the Japan Society for Clinical Anesthesia, October 14–16, 2004, Osaka, Japan

Received: December 15, 2004 / Accepted: March 18, 2005