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Dental Rolls for Eye Operations

To the Editor:—During general anesthesia, it is common to see secretions accumulate in the back of the throat and the nose, which are routinely suctioned out during, or at the end of, a case. The face of a patient scheduled for opthalmic surgery under general anesthesia is usually physically inaccessible to the anesthetist. It is difficult to detect secretions accumulating in the nose or mouth once the patients are fully draped. Also, reaching under the drapes and suctioning the secretions may be cumbersome and may disturb the operative field. We recently administered general anesthesia to a child undergoing eye muscle surgery in whom the surgeon, during the procedure, noticed secretions from the nose flowing under the drapes and into the eye. This led to a break in sterility necessitating a repeat sterile prep and drape. This also necessitated the use of prophylactic antibiotics.

Since then, we have begun using Rhode Island dissectors (fig. 1), commonly known as Dental Rolls, to plug the nostrils of ophthalmic surgery cases undergoing general anesthesia. Following intubation, they can be easily placed into the nostrils to block any nasal secretions. Also, we have been suctioning the nose and the throat just prior to the draping of the patient.

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FIG. 1. Volunteer shown with dental rolls in nostril. Package containing rolls is also seen.

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An Easily Assembled Device for Transtracheal Oxygenation

To the Editor:—It is well established that placement of a large-bore intravenous cannula through the cricothyroid membrane is an effective method of oxygenating the patient with supraglottic airway obstruction.[1–4] Several devices have been proposed for connecting the hub of the intravenous cannula to a source of positive-pressure oxygen.[5–8] Unfortunately, in the situation where airway difficulty is not anticipated, these devices may not be readily

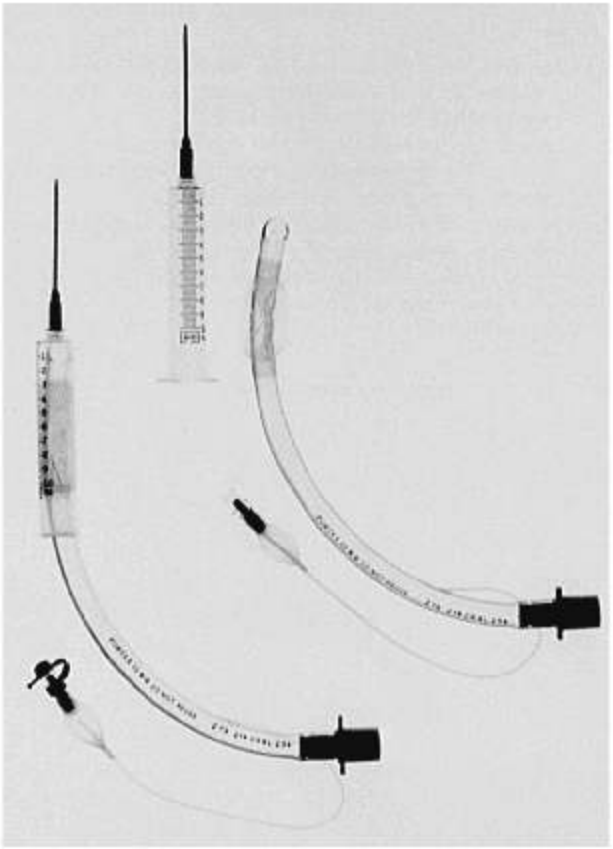

FIG. 1. An 8.0-mm endotracheal tube and a 10-cc syringe is shown separately (above) and connected (below) into a transtracheal oxygenation system with a 14-gauge cannula.

available. This is often the case during cardiopulmonary resuscitation on the hospital ward or in the field situation.

Stinson recommended fitting the adaptor of an 8-mm endotracheal tube into the barrel of a 3-ml disposable plastic syringe (Monoject) (Fig. 1). However, the Portex endotracheal tube adaptors used in our hospital have a raised edge that make this fitting impossible with adult-sized endotracheal tubes and available syringes. Attia *et al.* recommended placing the adaptor of a 3-mm pediatric endotracheal tube directly into the hub of the transtracheal cannula. These are often unavailable on the adult resuscitation cart.

We have found that the entire cuffed endotracheal tube (sizes 6.5 mm to 8.5 mm) will fit into a 5-ml, 10-ml, or 20-ml Becton-Dickinson syringe barrel. The cuff is then inflated to obtain an airtight seal. The luer-lock connector of the syringe attaches to the transtracheal cannula, and the endotracheal tube end provides a standard 15-mm connector. This device will deliver pressures in excess of 50 cm H_2O to the transtracheal catheter when connected to a resuscitation bag or anesthesia machine.

Attia *et al.* studied the pressure-flow relationships of various standard intravenous catheters.[1] Their equipment consisted of a self-inflating resuscitation bag, and a 3-mm pediatric endotracheal tube connector to fit the hub of the intravenous cannula. An 18-gauge cannula delivers nearly 500 ml/min at a driving pressure of 5 cm H_2O. This more than satisfies the basal oxygen requirement of the adult, although hypercarbia would result. A 14-gauge cannula delivers in excess of 7000 ml/min at a pressure of 50 cm H_2O. Life-sustaining oxygenation can be provided in this fashion. We have found that the endotracheal tube/syringe barrel device is similar in its resistance characteristics to a 3-mm endotracheal tube connector.

There are many brands of endotracheal tubes and syringes. The use of the endotracheal tube cuff corrects for variations in barrel size between different brands of syringes. Thus, commonly available cuffed endotracheal tubes and syringe barrels can be rapidly assembled into an effective transtracheal oxygenation system.

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