The usefulness of caffeine to ameliorate the situation may point to the apnea of central origin and the patient’s prematurity.

The prognosis of holoprosencephaly is very poor, with only 50% of patients surviving by 4 to 5 months of age, and only 20% of patients surviving beyond 12 months of age. Treatment is usually supportive. Ventriculoperitoneal shunt for hydrocephalus, fundoplication, or gastrostomy tube placement in cases of GERD and corrective surgeries for orofacial deformities are some of the surgeries required [4]. Anesthetic management of holoprosencephalic patients should involve investigations for other associated congenital anomalies; optimization of endocrine dysfunction; seizure prophylaxis; avoidance of general anesthesia wherever possible; avoidance of opioids when using general anesthesia; maintaining normal HR and body temperature [5]; anticipating airway difficulties; and postoperative apnea monitoring.

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Difficult mask ventilation: Tegaderm for sealing a patient’s fate!☆☆

To the Editor:

Mask ventilation is the fundamental technique of airway management during anesthesia. An unusual method of improving mask ventilation in difficult airway situations due to the presence of a thick beard is presented.

A 50 year old man with multiple predictors of difficult mask ventilation (edentulism, obesity, large neck, thick beard, and history of obstructive sleep apnea) was scheduled for a minor procedure requiring general anesthesia. After making conventional preparations to combat possible difficult mask ventilation, anesthesia was induced with fentanyl and aliquots of intravenous propofol. As the anesthesia plane deepened, optimal mask ventilation as judged by the lack of chest rise and end-tidal CO2, was not achieved. Conventional maneuvers including insertion of an oropharyngeal airway, chin lift, jaw thrust maneuver, and two-handed mask technique with a second anesthesiologist did not add any significant benefit. Fresh gas continued to escape around the mouth due to the poor seal caused by the patient’s thick beard.

To facilitate a seal, a large Tegaderm dressing (3M Healthcare, Maplewood, MN, USA) was placed over the nose and mouth of the patient, with the outer edges extending over the thick beard (Fig. 1). An opening over the mouth was carefully incised, allowing for air movement (Fig. 2). With the air leak now sealed, successful mask ventilation was confirmed using both chest rise and end-tidal CO2. The patient was appropriately ventilated prior to uneventful intubation through the slit placed over the oral opening.

Despite recognition of difficult mask ventilation due to the presence of a beard, only a few remedies exist. Suggested ideas in the literature include the use of viscous jelly [1]. This substance may cause the mask to slip from gloved hands (especially when force is applied to improve the seal). It also makes a situation messy as a large amount of jelly is needed and it tends to spill over to the face. Shaving before surgery is unacceptable to the patient and may not be a valid option [2]. Using wet gauze pieces around the mask also has been tried but with limited success, and leaks with all of the above-mentioned methods are inevitable.

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Fig. 1 Tegaderm dressing (3M Healthcare, Maplewood, MN, USA) being applied, while it is kept stretched with the assistance of additional hands.
The large sized Tegaderm dressing with cut out oral opening provided an extremely efficient seal. The surface of the Tegaderm dressing provides significant friction, which prevents slippage of the facemask. Application of the film, while keeping the Tegaderm stretched assisted by additional hands, requires only a few seconds. Keeping the mouth open during application allows cutting out the oral part of the film, thus providing an opening for ventilation without possible trauma. Once endotracheal intubation is achieved, the Tegaderm may be removed by tangential force assisted with wet gauze. This takes care of the possibility of hair being pulled out during removal. The present case illustrates the successful and safe use of this novel technique for maintaining the airway in patients with thick beards.

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Rocuronium-sugammadex use in electroconvulsive therapy of patients with pseudocholinesterase enzyme deficiency

To the Editor:

Electroconvulsive therapy (ECT), which involves seizure induction by electrical stimulation of the brain, is one of the treatments used in psychiatric disorders that do not respond to pharmacological therapy. An ideal anesthetic agent for ECT should provide rapid induction and recovery, have a short duration of action and minimum side effects, and have little effect on seizure threshold, or even have a seizure-enhancing effect [1].

Succinylcholine is a depolarizing muscle relaxant commonly used during ECT due to its short duration of action; it is also rapidly hydrolyzed by pseudocholinesterase. If pseudocholinesterase enzyme is deficient (atypical) or present in insufficient amounts, the muscle relaxant effect of succinylcholine is prolonged [2]. The rapid onset of action of rocuronium makes it an alternative to succinylcholine in such cases [3]. Sugammadex is a γ-cyclodextrin compound designed to selectively bind and reverse the effects of steroidal neuromuscular blockers such as rocuronium [2]. We present the anesthetic management of a patient with pseudocholinesterase deficiency undergoing ECT.

In routine preprocedure examinations, pseudocholinesterase enzyme deficiency was found (1529 U/L, N: 5300-12900 U/L) in a male patient (100 kg, 170 cm) aged 45 years, who was scheduled to undergo 10 sessions of ECT for a diagnosis of major depression. The patient was brought to the ECT room, where standard monitoring including electrocardiogram, noninvasive blood pressure, and peripheral oxygen saturation was established; thereafter, vascular access was performed. Intravenous (IV) atropine 0.5 mg was used in premedication. Propofol 1 mg/kg was given for induction, and rocuronium 0.3 mg/kg and sugammadex 2 mg/kg IV were used as antagonists. In the apneic phase, ventilation was maintained using 100% oxygen via facemask. According to data recorded after 10 sessions, the mean anesthesia duration was 14.5 ± 3.9 minutes, motor seizure duration was 30.2 ± 4 seconds, spontaneous breathing rate was 154 ± 53.5 seconds, and time of discharge to the ward was 18.7 ± 5.5 minutes.

Since ECT is a short procedure, postoperative residual curarization is an important issue for patient safety. Rocuronium molecules in plasma are encapsulated by sugammadex, resulting in a rapid decrease in the number of rocuronium...