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CLINICAL INFORMATION

Awake insertion of a Laryngeal Mask Airway-Proseal™ as alternative to awake fiberoptic intubation in management of anticipated difficult airway in ambulatory surgery

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KEYWORDS
Difficult airway;
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Abstract
Background and objectives: The decision whether to manage an ambulatory patient with a previously documented difficult airway with a supraglottic device remain controversial. We report an awake insertion of a Laryngeal Mask Airway Proseal™ in a patient with known difficult airway scheduled for ambulatory surgery.
Case report: A 46-yr-old woman was programmed as a day case surgery for breast nodule resection. Her anesthetic record included an impossible intubation with cancelation of surgery and subsequent awake fibroscopic intubation. She reported emotional distress with the previous experience and declined this approach. In view of the previous experience, an awake airway control with a Laryngeal Mask Airway Proseal™ was planned after explaining and reassuring the patient. After adequate topicalisation, a size 4 Laryngeal Mask Airway Proseal™ was successfully inserted after two attempts, and their patency was confirmed by capnography. Anesthesia was induced intravenously and the surgery was uneventful.
Conclusion: We describe a feasible alternative strategy to awake intubation in a patient with known difficult airway undergoing ambulatory surgery. In this specific clinical situation, if tracheal intubation is deemed unnecessary, awake supraglottic airway might allow adequate ventilation and their use should be considered.

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PALAVRAS-CHAVE
Vias aéreas difícil;
Procedimentos Cirúrgicos Ambulatoriais;
Máscaras Laríngeas

Inserção de máscara laríngea ProSeal™ em paciente acordado como opção para intubação por meio de fibra óptica para o manejo de via aérea difícil prevista em cirurgia ambulatorial

Resumo
Justificativa e objetivo: A decisão quanto ao manejo de paciente ambulatorial com via aérea difícil previamente diagnosticada com o uso de dispositivo supraglótico permanece controversa. Relatamos o caso de inserção de máscara laríngea ProSeal™ em paciente acordado, com via aérea difícil prevista, agendado para cirurgia ambulatorial.
Relato de caso: Paciente do sexo feminino, 46 anos, programada para cirurgia de ressecção de nódulo de mama com alta hospitalar no mesmo dia. A história anestésica incluía uma intubação impossível, com o cancelamento da cirurgia e posterior intubação com o uso de fibroscópio, com a paciente acordada. A paciente relatou que ficou emocionalmente abalada com a experiência anterior e recusou essa abordagem. Considerando essa experiência anterior, uma abordagem das vias aéreas com a paciente acordada e o uso de uma máscara laríngea ProSeal™ foi planejada, após se explicar o procedimento para a paciente e tranquilizá-la. Após topicalização adequada, uma máscara laríngea (LMA ProSeal™) de tamanho 4 foi inserida com sucesso depois de duas tentativas e a permeabilidade foi confirmada por capnografia. A anestesia foi induzida por via intravenosa e a cirurgia foi feita sem intercorrências.
Conclusão: Descrevemos uma estratégia opcional viável para a intubação em uma paciente acordada com via aérea difícil previamente diagnosticada submetida a cirurgia ambulatorial. Nessa situação clínica específica, quando a intubação traqueal é considerada desnecessária, a via aérea supraglótica em paciente acordado pode permitir uma ventilação adequada e seu uso deve ser considerado.

Introduction

The Laryngeal Mask Airway is a well established airway device for most adult and pediatric patients, and its use in day case anesthesia has become more and more common as a part of typical ambulatory surgical procedures.[1] The numbers of patients presenting for ambulatory surgery with predicted difficult airway is increasing.[2] In this specific clinical situation, if tracheal intubation is deemed unnecessary, the use of a supraglottic airway might allow adequate ventilation. Drolet proposed the insertion of the supraglottic device under sevoflurane anesthesia maintaining spontaneous ventilation if its efficacy is not certain after careful evaluation of the patient.[3]

We report the successful awake insertion of a Laryngeal Mask Airway Proseal™ (LMA Proseal, Laryngeal Mask Company Limited, Singapore) in a patient with recognized difficult airway undergoing breast surgery in our ambulatory facility. The patient gave written informed consent for publication of this article.

Case report

A 46-yr-old, 100-kg, 163 cm, BMI 36.51 kg/m^2, woman with a breast lump was scheduled as a day case surgery for nodule resection. Past health history included tuberous sclerosis, epilepsy, and hypothyroidism under treatment. Her anesthetic record involved an impossible intubation in a previous mastectomy that was canceled and subsequently performed under an awake fibroscopic intubation. In addition she had features suggesting a potentially difficult airway, including a Mallampati Class III, thyromental distance of 4 cm, neck circumference >40 cm, and upper lip bite test Class III. The patient reported considerable emotional distress from the previous experience with the awake fiberoptic intubation and declined this approach. She rejected the possibility to perform the procedure under local anesthesia. Owing to the negative previous experience, we offered her the option of an awake insertion of the LMA Proseal using topical anesthesia and slight sedation, and we obtained her consent. Our alternative plan for failed insertion was to perform an awake tracheal intubation using the Airtraq or fiberscope. An Aintree catheter was prepared in case of failed ventilation during the procedure.

Intravenous atropine 0.6 mg was used as an antisialagogue to enhance effectiveness of the local anesthetic, followed by 4 mL lidocaine 4%, delivered via a nebulizer mask. After preoxygenation, we sedated the patient with midazolam 0.03 mg/kg and the oropharynx was subsequently sprayed with lidocaine10%. We asked the patient to open the mouth and protrude the tongue, and a size 4 LMA Proseal was gently advanced with the cuff completely deflated. A moderate gag reflex followed the first attempt, and a second attempt was made by asking the patient to swallow while the mask was slightly pushed into the hypopharynx by the anesthesiologist. The cuff was inflated and the mask was connected to the respiratory circuit. The patency of the airway was confirmed by capnography and observing regular movement of the reservoir bag. The patient tolerated the procedure well, while maintaining spontaneous respiration and she did not experience oxygen desaturation. Anesthesia