**Título:** DIFFICULT AIRWAY MANAGEMENT: CONSIDERING ALL AVAILABLE TECHNIQUES AND DEVICES

**Autores:** An Windels (1º autor), Miguel Ferreira

**Instituições:** Hospital do Espírito Santo, EPE Centro Hospitalar Universitário Lisboa Norte, EPE

**Área Terapêutica/Tema:** Manejo da Via Aérea (Airway Management)

**Resumo:**

Background:

In patients with anticipated difficult airway management, spontaneous breathing should be preserved.1

Ketamine-Only breathing induction (KOBI) is a novel airway procedure used particularly in emergency medicine, with very limited published evidence, in which dissociative-dose ketamine is used without a neuromuscular blocking agent to facilitate intubation while airway reflexes and spontaneous ventilation is maintained. Therefore, KOBI is useful in management of predicted difficult airway, providing similar safety to traditional awake bronchofibroscopy intubation.1

Airway management of patients with maxillofacial trauma is challenging. The injury itself as well as the surgical approach (that may require a free oral and/or nasal cavity) can limit the airway access.2

Case Report:

49-year-old female patient with medical history of rhinosinusitis and tobacco use, presenting for mandible fracture repair with acceptable mouth opening (maximum interincisal distance ~3.5cm) and other predictors of a difficult nasotraqueal intubation (NTI) (narrow nostrils, arched palate and short neck). Considering the predicted difficulty, a KOBI with videolaryngoscopy and topical anesthesia was attempted. This first approach was unsuccessful. A second and third attempts with videolaryngoscopy and thereafter direct laryngoscopy were performed by the specialist in anesthesia also without successful NTI. Ventilatory support was given through a supraglotic airway device (SAD) (I-gel) and an attempt was made to pass a Frova intubating catheter, also without any success. Finally, NTI was accomplished through bronchofibroscopy performed by the on-call pulmonologist.

Discussion/Learning Points:

Traditional awake bronchofibroscopy intubation would be a suitable plan A for this predicted difficult airway, but it requires additional time, patient cooperation, skills and equipment that are not immediately available in every operating room. KOBI has the advantages of rendering the patient unconscious and amnestic while breathing spontaneously, being particularly useful in uncooperative patients.1

A SAD was used as a temporizing measure until a more definitive airway was obtained. There are reports of intubation catheters used through a SAD to facilitate tracheal intubation in difficult airway management and it was an appropriate attempt in this case.3

Further research on the description, indications, risks and benefits of KOBI is needed for a safer and successful use of this recent technique.

Difficult airway management should be performed in a location equipped with all available airway tools, including SAD, videolaryngoscope, bronchofibroscope and supplies for cricothyroidotomy. Regular training of anaesthesiologists in difficult airway management is paramount.

1 West J Emerg Med. 2019; 20: 466-71;

2 Craniomaxillofac Trauma Reconstruction 2008;1: 39-48;

3 Can J Anesth. 2012; 59: 704-15.