

LINGUAL AND INFERIOR ALVEOLAR NERVE INJURY FOLLOWING THE USE OF AN I-GEL™ LARYNGEAL MASK



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INTRODUCTION

The i-gel™ laryngeal mask (i-gel™ LM) has a supraglottic airway non-inflatable cuff, which is designed to anatomically fit the pharyngeal, laryngeal and perilaryngeal structures¹. This is to prevent injury by compression that can occur with supraglottic inflatable devices, such as the lingual nerve, hypoglossal and recurrent laryngeal². However, there are two published cases of lingual nerve injury with the i-gel™ LM^{1,2}.

We report a case of a patient who developed lingual and inferior alveolar nerve injury followed by the use of an i-gel™ laryngeal mask that was correctly and atraumatically inserted.

DESCRIPTION OF THE CASE

Female, 52 year old, 61 Kg, ASA 2, underwent elective knee arthroscopy.

General Anesthesia

Monitorization: ASA standards

Induction: Midazolam 2 mg + Fentanyl 150 µg + Propofol 200 mg

Easily inserted a size – 4 i-gel™ LM, following the manufacturer's recommendations

Volume controlled ventilation was not associated with an air leak with the airway pressure < 20 cmH₂O

Maintenance: Sevoflurane + oxygen + air mixture

Length of anesthesia : 52 minutes

Per-operative period without accidents or complications.

Recovery room

The patient noticed:

- Bilateral numbness in the anterior two-thirds of the tongue, lower lip, lower teeth and loss of taste
- On the examination the tongue appeared and moved normally and there were no visible stigmata of intra-oral trauma.

The diagnosis of the Neurologist was a probable injury of the inferior alveolar and lingual nerves caused by the use of the i-gel™ LM.

Conservative treatment was advised. After 12 weeks all symptoms resolved.

COMMENTS AND DISCUSSION

The lingual and inferior alveolar nerves go together between the medial and lateral pterygoid muscles along the internal face of the mandible branch until to the mandibular canal. At this level the nerves go by separate ways^{1,2}. At any point of this route nerve damage can occur by the compression of the laryngeal mask, although it is a rare situation². We believe that the injury to the nerves in this case was caused by direct compression of the buccal cavity stabiliser (rigid and wide structure that prevent the i-gel™ LM to move) at any point of the route described above. Theoretically, the i-gel™LM decreases the risk of nerve damage by compression because it hasn't an inflatable cuff, however this complication can still occur.