

A NEW SUPRAGLOTTIC DEVICE AS ALTERNATIVE FOR RABBIT ENDOTRACHEAL INTUBATION

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ABSTRACT

In rabbits, anesthetic risks are significantly higher than in dogs and cats.² During prolonged anesthesia, assuring a patent upper airway is vital to increase the chances of survival.² Currently, the most common method to achieve this is endotracheal intubation.^{5,8} This method of intubation is complicated by the rabbit's oropharyngeal anatomy and tendency to develop laryngospasm during intubation.^{5,8} In addition, post-intubational complications may occur, such as respiratory arrest, laryngeal/tracheal injury or edema, or development of tracheal strictures.^{4,5,9}

Because of the difficulties of intubating rabbits, alternative approaches to manage the airway, such as the use of supraglottic airway devices, have been investigated.^{1,6,7,10,11} However, the use of such devices to date have primarily involved experimental studies with human pediatric devices or prototypes for use in laboratory animals.^{1,6,7,10,11} In 2009, a novel supra-glottic airway device (v-gel[®], DocsInnovent Ltd, London, UK) was developed with the use of rabbit cadavers.³ After refinement of the prototype, which was designed specifically to fit the rabbit's oropharyngeal anatomy, clinical trials were performed to validate its use in clinical practice. To date the v-gel[®] has been used in >200 rabbits. In >90% patients, a patent airway was established quickly and easily on the first attempt, and successfully maintained during both spontaneous and mechanically controlled ventilation with minimal leakage of isoflurane. Minor complications (e.g., linguocyanosis, gastric inflation, insertion difficulties due to improper anesthetic depth or dental issues) were encountered in <5% of patients. In addition, recovery was usually quick and uneventful. Results demonstrate that the v-gel[®] provides an attractive and practical alternative to endotracheal intubation in rabbits.

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