

## **The use of topical laryngeal lidocaine with propofol induction and impact on intra-ocular pressure in feline anaesthesia**

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Topical laryngeal lidocaine (TL) is commonly recommended for feline intubation. This randomized, prospective, blinded cross-over study evaluated the effects of TL on propofol induction dose requirements, ease of intubation, and intraocular pressure (IOP) in healthy cats.

Eight ASA I cats, (1-3 years old, mean weight 3.47 kg) were anesthetized on 3 occasions. Premedication included midazolam ( $0.3 \text{ mg kg}^{-1}$ , IV) and hydromorphone ( $0.05 \text{ mg kg}^{-1}$ , IV), followed by propofol ( $2 \text{ mg kg}^{-1}$  over 20 sec, IV) with additional boluses of  $0.5 \text{ mg kg}^{-1}$  until animal attained sternal recumbency (induction). Cats were assigned to receive TL (10 mg) or no treatment (control group, CG). Sedation, intubation ease and attempts were scored. Cardiorespiratory variables and IOP (tonometry) were obtained at baseline, after sedation, post-induction, post-intubation, 5 minutes after isoflurane, at the end of inhalant and post-extubation. Analysis included a general linear mixed model with *post-hoc* analysis. Single variables were analyzed for mean differences between groups with student t-test and Wilcoxon test was used to compare scores.

Sedation did not change IOP. Cats that received TL had a lower propofol induction dose ( $3.5 \pm 0.8 \text{ mg kg}^{-1}$  vs  $4.6 \pm 0.9 \text{ mg kg}^{-1}$ ), lower IOP following intubation (27.45 vs 39.33 mmHg) and better induction ease score compared to the CG. Propofol significantly increased IOP in both groups. No differences were noted in cardiorespiratory variables.

Propofol increased IOP. Cats in the TL group needed lower propofol dose for intubation, had better intubation score and a lower IOP after intubation.