

The Use of Throat Packs in Canine Dentistry: Current Veterinary Practice Protocols, Preferences and Opinions of UK-Based RVNs and SVNs

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Introduction

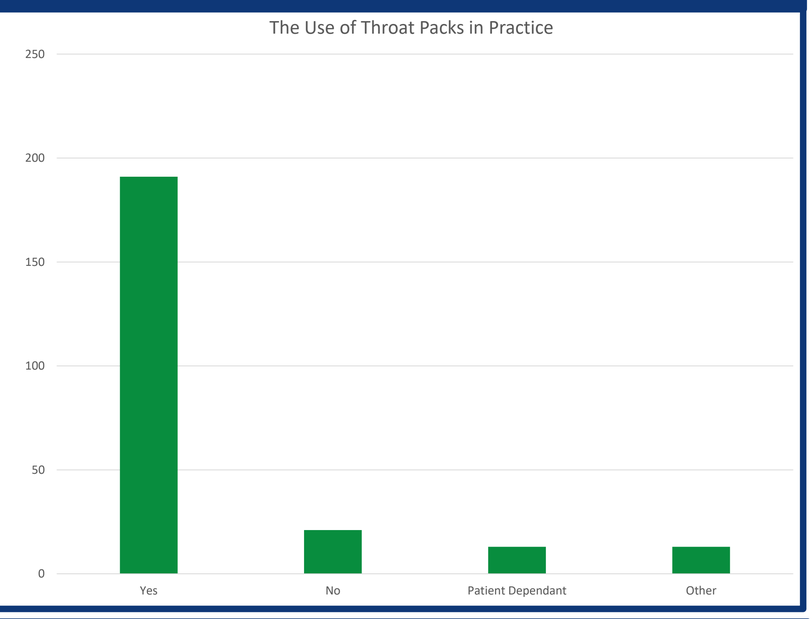
Veterinary practices are commonly identifying canine periodontal disease, with a 2016 study finding that 6.6% of 1901 patients were diagnosed with the disease (Robinson et al., 2016), and dental procedures regularly follow. Throat packs are routinely used in dental procedures, however, recent studies in human medicine have questioned their benefits (namely the reduction in fluid aspiration
(Hamlin, 2011) and prevention of debris introduction (Bloor, 2012) and tracheal injury (Adshead, 2011). Powell et al.'s 2022 study concluded that they were not an effective barrier, and possibly increased throat pain. In 2021, Faro *et al.* concluded that their presence made no statistically significant difference to post op nausea and vomiting (PONV), and occasionally, worsened sore throats and dysphagia. This project aims to look at current usage, practice protocols, and RVNs and SVNs' perceived advantages and disadvantages of their use in canine dentistry.

Methods

A questionnaire targeted at RVNs and SVNs was created using JISC and was distributed using social media and emailed to veterinary practices, applying both convenience and snowball sampling to reach the calculated sample size of 378. The questionnaire included both open and close ended questions to collate data. The study gained approval from the Harper Adams Ethical Committee prior to rollout. A pragmatic approach was used for this study, and results were thematically analysed.

Results

Overall, the majority of practices required a throat pack to be placed during canine dental procedures as part of their practice protocol. The most common throat pack used was gauze swabs (39%, n = 75), with flange mouth packs also being a popular choice (37%, n = 71). The majority (82%, n = 196) of respondents preferred a throat pack to be placed and 75% (n = 179) felt more comfortable monitoring a dental procedure if a throat pack was placed. Perceived benefits of throat packs included less coughing, retching and upper respiratory tract (URT) noises, reduced fluid aspiration, and a smoother recovery. Many respondents did not perceive any negative impacts of throat packs, but some noted that throat packs "caused tissue damage and increased risk of irritation and bleeding", had the "potential to be left in-situ and cause unnecessary damage" and "increased coughing due to tracheal trauma. These potential complications could be reasons as to why 20% (n = 47) of respondents have witnessed post-operative complications/patient deaths linked to throat pack usage in dental procedures.



Discussion/Conclusion

Survey responses suggested that placing throat packs during canine dental procedures are a part of many practices' SOPs, with several respondents feeling more comfortable if they are present. Perceived advantages included less coughing, a smoother recovery and reduced risk of fluid aspiration, which directly contrasts conclusions made in human literature. However, given that there are respondents who have noted potential complications of their use, throat packs could possibly be creating a sense of false security with their presence, when in reality, they have the potential to increase post-operative throat pain and dysphagia (Faro et al., 2021) (Powell et al., 2022). In particular, respondents who have suggested that throat packs have the potential of causing unnecessary tracheal damage, and therefore post-operative sore throats, is reflected in Altun's 2022 study. Whilst the potential negative impacts of throat packs have been primarily researched in human studies, translating human medicine to animal medicine and vice versa can be hugely beneficial to both patients (Gohir, 2018), and given many of the studies citing the benefits are over a decade old, it would be beneficial to have more recent literature on whether their use is favourable. This study has the potential to inform a clinical trial, with data collected peri- and post-operatively, as well as at post-operative checks. This information could then be used to create more individualised protocols regarding the use of throat packs.

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References

Adshead, S. (2011) 'Cuffed endotracheal intubation in cats', The veterinary nurse, 2(9), pp. 510–517. doi: 10.12968/vetn.2011.2.9.510.
Bloor, C. (2012) 'No mess, no fuss–achieving a successful dental: part two', Vet Times, .
Faro, T.F., de Oliveira e Silva, E.D., Campos, G.J., Duarte, N.M., Caetano, A.M.M. and Laureano Filho, J.R. (2021) International journal of oral and maxillofacial surgery, 50(3), pp. 349–355. doi: 10.1016/j.ijom.2020.05.020.
Hamlin, J. (2011) The veterinary nurse, 2(3), pp. 156–163. doi: 10.12968/vetn.2011.2.3.156.
Powell, K., Amin, D., Sesanto, R., Bryant, A., Kukreja, P. and Waite, P. (2022) 51(3), pp. 366–370. doi: 10.1016/j.ijom.2021.07.011.
Robinson, N.J., Dean, R.S., Cobb, M. and Brennan, M.L. (2016) Preventive veterinary medicine, 131, pp. 87–94.
Gohir, T. (2018) International Animal Health Journal, Volume 5, Issue 2, pp. 24 - 26.