

Comparison of two non-invasive 2% enilconazole infusion protocols for treatment of canine sinonasal aspergillosis and importance of debridement for treatment efficacy.

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Non-invasive topical infusion therapies are widely used in canine sinonasal aspergillosis (SNA) but are time-consuming and associated with prolonged recovery and increased costs. Therefore, the main goal of the present study was to compare the efficacy of a simplified infusion protocol (D15E) with a 1-hour infusion protocol (D60EB). D60EB consisted in endoscopic debridement followed by 60 minutes 2% enilconazole infusion and 1% bifonazole cream depot into the affected frontal sinus through endoscopically placed catheter. For D15E protocol, after debridement, enilconazole infusion was shortened to 15 minutes, with the dog remaining in dorsal recumbency, head flexed at 90°, during the whole procedure. Adjunctive oral itraconazole therapy was prescribed in both protocols.

Effective debridement of fungal plaques is considered as an essential therapeutic step. Unfortunately, it is not always possible to achieve perfect debridement of the sinonasal cavities, due to incomplete accessibility of the whole sinusal area with the endoscope; however, its effect has never been assessed as such. Therefore, the second aim of this study was to evaluate the effectiveness of debridement on success rate after the first treatment.

Fisher's exact test was used to assess the difference in success rate between both protocols and in function of full debridement.

Twenty-eight dogs with SNA were treated with D15E and 25 dogs with D60EB. The median (range) duration of D15E was only 92 minutes (40-140) (compared to 176 minutes (135-225) for D60EB. First treatment success rate did not differ between both protocols and were 68% for D15E and 60% for D60EB. Both protocols had an overall success rate of 96% after 2 procedures. In contrast to the majority of dogs with D60EB, all dogs receiving D15E recovered quickly and were discharged the same day.

Completeness of debridement was assessed endoscopically in 48 dogs (28 treated with D15E and 20 with D60EB). Debridement was judged complete in 28/48 dogs and had a significant effect on first treatment success rate ($p=0.01$). When debridement was complete, 79% of the dogs (D15E: 15/19 dogs; D60EB: 7/9 dogs) were cured after the first procedure, compared to 40% (D15E: 4/9 dogs; D60EB: 4/11 dogs) of the dogs with incomplete debridement.

We concluded that (1) the simplified infusion protocol is quick, safe, easy and effective, and offers a favourable alternative to 1-hour infusion protocols for treatment of canine SNA; (2) completeness of the debridement undoubtedly is an important step for treatment success of infusion protocols.

Conflicts of interest: No conflicts of interest reported