CLINICAL TRIAL ON THE THERAPEUTIC EFFECT OF AN OZONATED PASTE IN CATS WITH CHRONIC GINGIVOSTOMATITIS

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Introduction Feline chronic gingivostomatitis (FGCS) is a highly debilitating oral inflammatory disease associated with chronic pain. Inflammation and chronic pain control are the treatment goals. Ozone is the third most potent oxidant, with very potent antimicrobial activity and capacity to stimulate angiogenesis and the immune response. Such features justify the current interest in its application dentistry.

Objective To assess the efficacy of ozone therapy in FGCS and to evaluate systemic impact with hematological and biochemical analysis.

Methods Design: prospective, randomized, double blind clinical trial. Two groups: cases (n=5) and controls (n=5) of FCGS refractory cases (at least 3 months after dental extractions).
Procedures: comercially available ozonated paste (Oxxy O3, 2MPharma) versus a placebo formulation of similar features; 1cm of paste, applied locally, every 12 hours, per cat for 30 days. Weight and stomatitis disease activity index (SDAI) were registered at 4 moments using photography. Hematological and biochemical parameters were collected both at the beginning and end of the treatment; Additional analgesic reinforcement was registered as rescue analgesia;
Mixed generalized linear models (GLMM) and Mann-Whitney-U test was used for statistical analysis.

Results Total proteins at day 30 were significantly inferior in the treated group (p=0.043), on the contrary albumin levels haven't change significantly. Of note, erythrocytes and hemoglobin levels decreased in the treated group, albeit not significant.
The treated group showed tendential improvement when compared with control group, but differences were not significant.
No severe adverse effects were registered. No kidney or liver biochemical changes were observed during the treatment period.

Conclusion The ozone paste may contribute to the FCGS improvement and may have also be related with some systemic effects which should be further studied with an increase of included animals. It appears to be safe since no major adverse effects were registered.

Acknowledgments
This work was supported by FCT - Fundação para a Ciência e Tecnologia IP, grant UIDB/00276/2020.

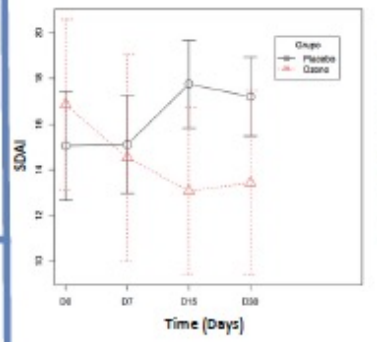

Figure 1 - SDAI score plot obtained in 4 time points in both placebo and treated (Ozono) groups.

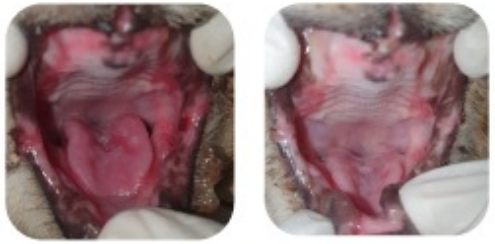

Figure 2 - clinical photographs at day 0 and 30 submited to topical treatment using an ozonated paste