Type of Manuscript:
Abstract

e-ISSN: 2595-5527
Doi: 10.32435/envsmoke.20236186
Volume 6, Issue 1, p. 86
2023

ENVIRONMENTAL SMOKE

OZONIZED VEGETABLE OIL AND VETERINARY APPLICATION

Gil Dutra Furtado[1]*

Ozone (O_3) is a molecule composed of three atoms of oxygen, very unstable, capable of reacting with various substances in the animal organism, giving rise to by-products that will participate in biochemical reactions. Under this reality, O_3 has a broad mechanism of action and can be used in various pathologies of animals, being widely used in the treatment of wound healing. O_3 is a substance found naturally in the Earth's atmosphere, however, for its therapeutic use, O_3 is produced by a medical generator, which, through high-voltage-electrical-discharges, is capable of capturing medical oxygen from a cylinder and disintegrating it. it so that its molecules are reorganized in the form of ozone. Ozone therapy is considered an integrative therapy that is characterized by the application of a mixture of ozone gas and oxygen gas (O_2), with a maximum of 5% O_3 (CARNEIRO, 2023; DI FILIPPO et al., 2020). Because it has a broad mechanism of action, ozone therapy is effective in several animal pathologies. The purpose of repeated administration of ozone is to create resistance against oxidative stress by stimulating the antioxidant system, therefore, medicinal ozone is considered a prodrug, as its by-products are responsible for biological effects in the patient's body (DE OLIVEIRA et al., 2014; VASCONCELOS et al., 2022). Ozone in its medicinal use has established itself as a promising treatment and prophylaxis for several conditions, mainly due to its broad mechanism of action, with beneficial effects such as immunomodulatory, antimicrobial, anti-inflammatory, analgesic and healing. Allows penetration into the deep layers of the skin, increasing the supply of oxygen to the cells and strengthening the natural protective barrier. When using the product in oil, it should be used by applying a few drops to the affected areas of the skin several times a day and, in accordance with the guidance of the veterinarian, the treated area should be massaged (WILMINK; VAN WEEREN, 2004). The use of O_3 is recommended when the patient has itching, skin inflammation, bacterial skin infections, fungal infections, hardened scar tissue, eczema, fissures, gingivitis and ear infections, always following the advice of the veterinarian. The application of ozone in the form of ozonated oil has been reported to be the most effective.

Keywords: Ozone. Therapy. Veterinary Medicine.

[1]Agronomic Engineer and Psychopedagogue, PhD in Psychobiology and Post-Doctorate in Environmental Development. He is currently a COOPAGRO (Cooperative of Agribusiness Technical Services) Cooperative and a researcher associated with LABEA (Laboratory of Aquatic Ecology) of the Federal University of Paraíba (UFPB), João Pessoa, Paraíba, Brazil

*Corresponding author: gdfurtado@hotmail.com

CREDIT AUTHORSHIP CONTRIBUTION STATEMENT
GDF: Conceptualization, practice, and writing of the article; participated in the methodology and writing; writing review and supervision.

DECLARATION OF INTEREST
The authors declare no conflict of interest with the participants or collaborators of this article, either directly or indirectly.

FUNDING SOURCE
The authors declare that no funding is applicable for this research.

REFERENCES
CARNEIRO, G. F. Endometritis in mares: diagnosis and conventional and/or alternative treatments. **Ciência Animal**, v. 30, n. 4, p. 113-122, 2023. Available from: https://revistas.uece.br/index.php/cienciaanimal/article/view/9837. Accessed on: 19 apr. 2023.

DE OLIVEIRA, H. H.; DE LIMA, C. J.; FERNANDES, A. B.; ZANGARO, R. A.; MOREIRA, L. H. Ozonated oil uses in topical treatment of tick infestation in dog - Case report. **Brazilian Journal of Veterinary Medicine**, v. 36, n. 4, p. 405-408, 2014. Available from: https://bjvm.org.br/BJVM/article/view/567. Accessed on: 19 apr. 2023.

DI FILIPPO, P. A.; FEITOSA RIBEIRO, L. M.; PEREIRA GOBBI, F. .; BRAVIM LEMOS, G. .; BITTENCOURT RIBEIRO, R. .; JERDY, H.; CARVALHO DA SILVA, L. .; SILVA VIANA, I. .; RAQUEL QUIRINO, C. . Effects of pure and ozonated sunflower seed oil (*Helianthus annuus*) on hypergranulation tissue formation, infection and healing of equine lower limb wounds. **Brazilian Journal of Veterinary Medicine**, v. 42, n. 1, p. e113520, 2020. Available from: https://doi.org/10.29374/2527-2179.bjvm1115321.

VASCONCELOS, J. G.; SOUZA, M. E. M. de; ANDRADE, A. B. P. de; COLARES, J. C.; TELES-FILHO, A. C. de A.; SALMITO, C. S. B. Use of ozone therapy as endometritis treatment in mare. **Ciência Animal**, v. 32, n. 2, p. 168-176, 2022. Available from: https://revistas.uece.br/index.php/cienciaanimal/article/view/9486. Accessed on: 19 abr. 2023.

WILMINK J. M., VAN WEEREN P. R. Differences in wound healing between horses and ponies: Application of research results to the clinical approach of equine wounds. **Clinical Techniques in Equine Practice**, v. 3, n. 2, p. 123-133, 2004. Available from: https://doi.org/10.1053/j.ctep.2004.08.011.

Submitted on: 22 Apr. 2023
Accepted on: 26 Apr. 2023
Published on: 30 Apr. 2023

© Copyright 2023