Randomized, double-blind, parallel, non-inferiority clinical trial for comparison between therapy with Easotic® versus photobiomodulation in canine otitis externa

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**Abstract**

Canine otitis externa is a common dermatological inflammatory disease of the external ear canal and ear pina. Etiology is multifactorial and involves primary, predisposing and/or perpetuating factors. Clinical signs include pain, pruritus, alopecia, erythema, head shaking and malodour. Treatment typicallly involves the use of topical otic antibiotics, anti-inflammatories or analgesics alone or in combination. However, some topical solutions may cause ototoxicity, adverse reactions and/or increase the odds for multidrug-resistant bacteria. Photobiomodulation (PBM), also known as LLLT (low-level laser therapy) is a non-invasive method that contributes to pain relief and reduction of inflammation contributing to tissue healing. Thus, PBM may be an alternative to conventional drug treatment. The aim of this study is to compare the potential benefits of PBM in the treatment of canine otitis externa to conventional treatment with topical otic drugs. Dogs will be randomically allocated in 3 different groups: group 1 (control), treated only with a commerical cleaning otic solution; group 2 (cleaning solution + conventional drug treatment); and group 3 (cleaning solutions + PBM therapy). Our hypothesis is that PBM anti-inflammatory effect can completely heal otitis without needing of antibiotics, antifungals and/or anti-inflammatories. A p<0.05 will be the level of statistical significance.