



Combined therapy effect of D-002 and omeprazole on chronic esophagitis induced by duodenal reflux in rats

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Abstract

Gastroesophageal reflux disease is a common gastrointestinal disorder. D-002 (beeswax alcohols) and omeprazole (OMP) present protective effects on esophagitis by reflux. In this study, the effect of combined therapy D002 + OMP on duodenum-esophageal reflux (DER) induced-esophagitis in rats was evaluated. Rats were randomized into five groups: one negative control and four groups with DER, including a positive control, two with D-002 and OMP (200 and 20 mg/kg, respectively), and other with combination therapy D-002 + OMP (200 + 20 mg/kg, respectively). All treatments were orally administered for 14 days after DER. Esophageal lesions' index (ELI), Histological score (HS) and malondialdehyde (MDA) content in esophagus were determined. Positive controls exhibited increase ELI, HS and MDA in esophagus compared to negative controls. The combination therapy lowered significantly both ELI (48.05%) and MDA (67.8%) compared to positive controls, but without significant differences compared to their respective monotherapies. However, the combination therapy significantly reduced the HS respect to the positive control, reaching 96% inhibition, an effect that was higher than each of the monotherapies. In conclusion, the administration of the combination therapy (D-002 + OMP) represents an additional benefit in the protection of esophageal tissue with respect to treatment with monotherapies.

Biography

Zullyt Barbara Zamora Rodriguez is doctor in Veterinary Medicine by Agrarian University of Havana 1993. PhD, Full research by National Center of Scientific Research, and Auxiliary Professor by Agrarian University of Havana. Founder of Ozone Research Center in Havana (1994). Specialist in the Researcher of Experimental Pharmacology of the uses of Medical Ozone and ozonized substances (oils) for their application in human and Veterinary Medicine. Author of more than 70 publications in scientific journals and author of the first book about Ozonotherapy in Veterinary Medicine. Professor of International Basic and Advanced Ozone Therapy courses for Human and Veterinary Doctors taught in Cuba, Mexico, Brazil and the USA. Tutor and adviser of different theses of graduates and medical specialties in the theme of Ozone therapy. He directed the research project on Ozone Therapy in septic shock and currently directs the research project on the use of ozone therapy in veterinary dermatology diseases. She has participated in international congresses and scientific meetings in different countries where she has given lectures, among them are United Kingdom, México and Brazil. Currently, member of the World Ozone Therapy Federation and Pharmacology Cuban Society.

Publications

1. Ozone oxidative preconditioning reduces nitrite levels in blood serum in LPS: Induced endotoxic shock in mice
2. International Ozone Applications Symposium. CNIC 2020
3. Effect of Ozonized Sunflower Oil on Mast Cell Density in a Model of Atopic Dermatitis in Mice

4th International Conference on Gastroenterology and Digestive Disorders,
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