Effects of Formulations Containing Dimethylaminoethanol (DMAE) Acetoamidobenzoate and Pidolate on the Skin

Gustavo N. GUIMARÃES ^{1*}, Marlus CHORILLI ², Gislaine R. LEONARDI ³, Paula S. PRESTES ³, Gislene GARCIA ³, Maria S.M. PIRES-DE-CAMPOS ³ & Maria L.O. POLACOW ³

 ¹ Department of Morphology, Piracicaba Dental School, University of Campinas, Av. Limeira, 901, Piracicaba, SP/Brazil, 13414.903
² Department of Drugs and Medicines, Faculty of Pharmaceutical Sciences/Araraquara, São Paulo State University, SP/Brazil

³ Faculty of Health Science, University Methodist of Piracicaba, SP/Brazil

SUMMARY. The aim of this study was to analyze the effects of formulations containing DMAE pidolate and DMAE acetoamidobenzoate on the skin. Four areas of five swines were submitted to following treatments during 15 days: C (Control), S (Silicone = 80 % DC*LC Blend®), F1 (DMAE acetoamidobenzoate), F2 (DMAE pidolate). Measures of the thickness of epidermis and stratum corneum, and the density population of fibroblasts and leukocytes in papillary dermis were obtained. We also assessed possible variations in birefringence of dermis collagen bundles. Means of the data was compared using ANOVA followed by the Tukey test. The F1 and F2 groups showed a thicker epidermis than the control group (p < 0.01), but did not demonstrate a significant difference in the number of fibroblasts and leukocytes, as well as in the birefringent areas of collagen bundles, in comparison with the control groups. The DMAE-supplemented formulations enhanced viable epidermis thickness, but did not modify structures related with mechanical properties of the skin.

KEY WORDS: Dimethylaminoethanol, Histopatology, Skin.

* Author to whom correspondence should be addressed. *E-mail:* gu_narvaes@yahoo.com.br