

PHOTODYNAMIC THERAPY OF FELINE SQUAMOUS CELL CARCINOMA WITH METHYL 5-AMINOLEVULINATE

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Abstract:

Photodynamic therapy of tumors with various photosensitizers, including porphyrins and 5-aminolevulinic acid (ALA) derivatives, has been widely used. We study here the efficacy of methyl 5-aminolevulinate (ALAME) formulated with dimethylenetriaminepentaacetic acid (DTPA) in the treatment of feline squamous cell carcinoma (FSCC) that usually occurs in unpigmented cats UV-exposed chronically. Eight cats with FSCC were selected for this study. The sensitizer was applied topically on the tumor during four hours. Then, an array of 30 light emitting diodes was used to irradiate the lesion (light dose = 12 J/cm²). Results were clinically qualified as "complete response" (total disappearance of the crusting lesion with re-epithelisation to healthy skin), "partial response" (>50% reduction in tumor size) and "no response". Biopsies were performed on the site of lesion after five months of treatment. Three cats had complete response and five, partial response, evaluated by histological analyses. In conclusion, ALAME/DTPA photodynamic therapy constitutes a possible choice in the treatment of FSCC. Acknowledgements: CAPES, FAPESP, CNPq.