ACCELERATED WOUND HEALING OF ORAL SOFT TISSUES AND ANGIогENIC EFFECT INDUCED BY A POOL OF AMINOACIDS COMBINED TO SODIUM HYALURONATE (AMINOGAM®)

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In this study we investigated the property of a new medical substance, in the form of a gel compound containing four aminoacids (glycine, leucine, proline, lysine) and sodium hyaluronate (AMINOGAM®), to accelerate the wound healing process of the soft oral tissues and to promote angiogenesis in vivo in the vascular proliferation in chick embryo chorioallantoic membrane (CAM) assay. Furthermore, we investigated the capacity of AMINOGAM® to induce the expression of an angiogenic cytokine, namely vascular endothelial growth factor (VEGF) in human fibroblasts in vitro. Results showed that AMINOGAM® promoted wound healing in post-surgical wounds (after teeth extraction, oral laser surgery with secondary healing without direct suture of the surgical wound, and after dental implant insertion). Stimulated angiogenesis in vivo in the CAM assay and the response was similar to that obtained with vascular endothelial growth factor, a well-known angiogenic cytokine, tested in the same assay, and confirmed by clinical outcomes, which showed reduction of the healing time of oral soft tissues after three different kinds of surgery and also the absence of post-operative infections.

Key words: aminoacids, angiogenesis, chorioallantoic membrane, oral soft tissue, sodium hyaluronate, wound healing

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