

عنوان مقاله:

Cultured Equine Autologous Keratinocytes on Collagen Membrane for Limb Wound Healing

محل انتشار:

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خلاصه مقاله:

Objective— Use of equine autologous keratinocyte on collagen membrane grafts (KCMG) for treatment of wounds in the distal aspect of the horse limb.
Design— Experimental study **Animals**— Four horses. **Procedure**—Keratinocytes have been separated by enzyme digestion from lib skin sample and proliferated in vitro. Full thickness excision wounds (۶.۲۵ cm^۲) were created on the mid-lateral of both metatars of each horse aseptically. The wounds were classified into two groups, group A and B as control (n=۴) and keratinocyte collagen membrane graft (KCMG [n=۴]) group respectively. Acid soluble collagen has been extracted from calf skin and polymerized in vitro, then keratinocytes, cultured on collagen membrane for one day. Cell graft was performed once on the ۴-day-old wounds. Photographs were taken twice weekly. Whole wounds excision biopsies were performed on ۲۸-day-old wounds.
Results— Geometrically, there were increase in epithelialization, contraction and total wound healing per day in group B, but it was not significant statistically. Histopathologically both groups had epidermal cells in superficial layer, but the amount of this layer, differentiation and maturation of stratum spinosum cells of epiderm in group B was better than group A. These differences were not significant (P-Value>۰.۰۵). **Conclusion and Clinical Relevance** — Perhaps use of keratinocyte collagen membrane graft (KCMG) have positive effects and cause better wound healing in derm and specially epiderm of equine lower limb wounds. For increase of cell treatment effects significantly, it is better to use cell grafts on large wound, also preparation of wound bed .and repeated treatments are essential

کلمات کلیدی:

Keratinocyte, Collagen membrane, Equine, Limb, wound healing

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