

Clinical 2 Studies of an Equine Amniotic Membrane Transplantation as a Biological Dressing in Skin Graft of Degloving Injury

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Signalment: A 4-year-old intact female gray hound and a 7-month-old intact female Jindo dog were referred for severe degloving injuries on distal hind limb.

Results: Lavage, staged debridement, topical and systemic antibacterial medication, sugar therapy and bandaging had been performed until healthy granulation tissues developed around the wound area. Full-thickness mesh grafts were applied to cover the skin defect in both cases at first. Then equine amniotic membrane (AM) transplantation was done over the grafted skin as an auxiliary treatment for graft fixation and epithelization. After surgery, some complications were observed in both cases. Exudates were not effectively drained through the covered AM and inflammation on the sites occurred. Despite daily applications of sterile bandage and antibiotic medication, the inflammation became more severe. Finally, the grafts and AM were separated from the beds.

Clinical relevance: An amniotic membrane has been used as a biological dressing material in human medicine, particularly for burns. In these cases, we initially expected that AM might support the skin graft and the bed because AM has some effects including prevention of infection, protection of the graft, and rapid re-epithelization and healing. However, it was not effective in our cases. As only 2 clinical trials have the limitation of AM evaluation on the treatment of skin wound in dog, further study is strongly recommended in future.

Key words: degloving wound, skin graft, equine amniotic membrane, dog

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