

Biological effects of amniotic membrane on diabetic foot wounds- Systematic review: Emerging and innovative approaches for wound healing and tissue regeneration

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Abstract

Introduction: The amniotic membrane (AM) has biological properties that are beneficial to wound healing process on diabetic foot ulcer (DFU).

Objective: To analyze scientific evidence found in literature about the use of the AM to stimulate DFU wound healing.

Method: It consists of a systematic review about amniotic membrane's influence assessing the outcomes "wound healing" and "wound healing time", applied to DFU. We have selected only six randomized controlled trials and the risk of bias was analyzed according to the Cochrane risk of bias tool. Next, we conducted a meta-analysis of the two outcomes to evaluate the evidence level.

Results: 6 clinical trials were selected, with a total of 331 patients. The most common risks of bias in the studies were selection, attrition and detection biases. Concerning the meta-analysis, we found that wound healing in the group treated with amnion occurs 2.5 times more often and is 32 days faster in comparison to the group that used conventional dressings.

Conclusion: There is statistical evidence to support the effectiveness of amnion in comparison to other conventional dressings.

Biography

Andre Oliveira Paggiaro has completed his PhD at the age of 34 years from Sao Paulo University, Brazil. He is plastic surgeon and diretor of ICHC tissue bank of São Paulo University, Brazil. Currently, working as professor in Guarulhos University, Brazil. He has over 50 publications that have been cited over 144 times and his publication H-index is 7.

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