

ABSTRAK

Background: *An extensive damage skin caused by burn injuries can result in high morbidity and mortality. Topical antibiotic such as silversulfadiazine has been used in burn wound care, but is not very effective in promote the epithelialization process. Amniotic membrane and platelet rich plasma (PRP) contains a lot of growth factors that can promote the epithelialization process.*

Methods: *A randomized clinical trial post-test control group designs, was done from December 2015 until February 2016, conducted to compare the use of platelet rich plasma, amniotic membrane, and silversulfadiazine topical, on deep 2nd degree burn care in Dr. Soetomo General Hospital. Data were collected on days 0, 7, 14, and 21, and evaluated the extend of burns to obtain the percentage of epithelialization areas and the rate of epithelialization process among this three groups. Data were analyzed statistically with one-way Annova's multivariate.*

Results: *PRP was significantly superior to amnion and silversulfadiazine in the percentage of epithelium ($P = 0,001$), and significantly superior to others in the rate of epithelialization process on first 7 days ($P = 0,009$), but there was no significantly difference on the 14th and 21th days*

Conclusion: *PRP may enhance the rate of epithelialization process in the deep 2nd degree burn wound, and can be considered as dressing in the treatment of burn wound. Growth factors in PRP may works more effectively in the first phase of wound healing.*

Keypoint : *deep 2nd degree of burn, platelet rich plasma, amnion, silversulfadiazine*