ABSTRACT

ROLE OF LYOPHILIZED RADIATION STERILIZED AMNIOTIC MEMBRANE TOWARD BONE HEALING OF FRACTURE FEMUR IN OPEN REDUCTION INTERNAL FIXATION (ORIF) IN SPRAGUE DAWLEY RATS

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Fracture treatment with Open Reduction Internal Fixation (ORIF) method has some weaknesses such as high risk infection, non union, implantation failed, and refracture. Lyophilized Radiation Sterilized Amnion Membrane (ALS-R) known that has some growth factors and cells scaffold which play role in fracture healing. This study aims to know the role of giving ALS-R in ORIF histopathologically in fracture femur healing process in rats. This study is involving 30 Sprague Dawley rats. Samples divided into three groups, whic is fracturized (K), fracturized and immobilized with ORIF (P1), and fracturized then immobilized with ORIF and given ALS-R (P2). After 28 days samples were terminated and took for its femur and analized histopathologically using Salked score. Data were analized with Kruskal-Wallis test and post hoc Mann-Whitney. This study results a statistically different histopathologic fracture healing between three groups (p<0.05). Comparison the means of P2 and P1 showed there was no significance difference, how ever the means of P2 is higher than P1. ALS-R has a positive impact toward fracture femur healing in Sprague Dawley rats.

Keyword: Fracture healing, ORIF, ALS-R