The Comparison in the Amount of Neovascularization Between Autograft Flexor Tendon with Freeze Dried Flexor Tendon Allograft Composite and Auto Mesenchymal Stem Cells in the Reconstruction of Flexor Tendon Defect In New Zealand White Rabbit

Abstrak:

Background: To achieve a satisfactory result of flexor tendon repair is still a great challenge to orthopaedic surgeons. Autograft and allograft tendons have been used with variable rates of clinical success. Logistic difficulties such as securing, preserving, and graft implantation are still hindering it from being used widely. This is where the use of allograft tendon coupled with bone marrow stem cell might come in handy as much hope has been put upon them to be able to give results not unlike autograft tendon.

Objective: To compare the amount of neovascularization between autograft tendon and freeze dried allograft tendon injected with bone marrow mesenchymal stem cell.

Materials and Methods: This research was done with the use of pure experimental research design performed on laboratory animals with post test only control group design. It was done in Dr. Soetomo General Hospital Surabaya comparing autograft tendon with freeze dried allograft tendon injected with bone marrow stem cell on the tendon defect. Newly-formed neovascularization is the countable parameter.

Result: No significant difference in the amount of neovascularization between autograft tendon with freeze dried allograft tendon injected with bone marrow stem cell (p=0.056).

Conclusion: With roughly the same amount of neovascularization between the two test groups, a conclusion can be drawn that freeze dried allograft tendon injected with bone marrow stem cell gives almost the same result as with autograft tendon.

Keyword:

Daftar Pustaka:

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