

ABSTRACT

Neovascularization Comparison Between Platelet Rich Plasma 20 % and Autologous Serum 20 % on Cornea Post Sodium Hydroxide Exposure

Idham Mustahid Arifin, Eddyanto, Nila Kurniasari,
Endang Retnowati, Windhu Purnomo

Objective: to compare neovascularization between platelet rich plasma 20 % and autologous serum 20 % on cornea post sodium hydroxide exposure.

Methods: a true experimental study with 2 groups post test design on New Zealand white hare's eyes. The hares that fulfilled inclusion criteria were 18, then they are divided into 2 groups. The right eye from both groups was exposed with 1 N sodium hydroxide for 60 seconds. The first group will be treated with platelet rich plasma 20 %, while the second group will be treated with autologous serum 20 %, then will be evaluated for 7 days. Neovascularization will be assessed. On the seventh day, corneal tissue will be collected for histopathology examination to neovascularization. The result will be analyzed, ratio scaled data will be tested by MANOVA test, and ordinal scaled data will be tested by Mann-Whitney test.

Result: Statistical analysis result showed that group that treated with platelet rich plasma 20 % had less neovascularization on day 5 observation ($p < 0,05$). Histopathology examination showed that there is no stastical different between two group.

Conclusion: Platelet rich plasma 20 % eye drop and autologous serum 20 % have the same ressult for corneal neovascularization after chemical injury.

Keywords: Chemical ocular injury, autologous serum, platelet rich plasma