INTISARI

Terapi menggunakan *messenchymal stem cell* dipercaya dapat mempercepat proses penutupan luka primer, meningkatkan produksi dari *growth factor*, dan meningkatkan jumlah fibroblas. Tujuan penelitian untuk pengaruh *messenchymal stem cell* dan *omental patch* terhadap jumlah fibroblas pada penyembuhan luka usus.

Jenis penelitian yang digunakan adalah penelitian eksperimental murni, dengan rancangan *randomized post test only control group design* menggunakan 18 ekor kelinci *New zealand white* jantan yang dibagi dibagi menjadi tiga kelompok secara acak. Kelompok I diberikan perlakuan abrasi usus dan penjahitan usus; Kelompok II diberikan perlakuan abrasi usus dan penjahitan usus + *omental patch,* Kelompok III perlakuan abrasi usus dan penjahitan usus + *omental patch* + *messenchymal stem cell* sebesar $1x10^7$IU dan terminasi pada hari ke-14. Hasil pengamatan jumlah fibroblas kemudian uji normalitas menggunakan *Shapiro-Wilk* dan dilanjutkan dengan uji *Lavene Statistic* dan didapatkan data normal dan homogen dan uji *one way Anova* untuk mengetahui perbedaan pada kelompok perlakuan.

Pemberian *messenchymal stem cell* dan *omental patch* signifikan terhadap penyembuhan luka usus kelinci *New zealand white* jantan. Hasil uji komparasi dengan *Post Hoc test LSD* pada seluruh kelompok perlakuan diperoleh hasil yang berbeda signifikan ($p < 0.05$) sehingga hal ini membuktikan bahwa pengaruh *omental patch +messenchymal stem cell* memiliki pengaruh yang paling efektif.

Kata kunci : kelinci *New zealand white* jantan, abrasi usus, *omental patch, messenchymal stem cell*

ABSTRACT

Therapy using messenchymal stem cells is believed to accelerate the process of primary wound closure, increase production of growth factor, and increase the number of fibroblasts. The aim of the study was to influence the messenchymal stem cell and omental patch on the amount of fibroblasts on healing of intestine wounds.

This type of research is purely experimental research, the randomized design of a post test only control group design uses 18 New Zealand white rabbits were divided males were divided into three groups randomly. Group I was given intestinal abrasion and intestinal sewing; The second group was given the abrasion behavior intestine and intestinal suturing + omental patch, Group III abrasion treatment of intestinal and bowel suture omental patch + messenchymal + stem cells for 1x ⟦10⟧ ^ 7IU and terminating on the 14th day. The observation of the number of fibroblasts and then test for normality using the Shapiro-Wilk and continued with test data obtained Lavene Statistic and normal and homogeneous and one way Anova test to determine the differences in the treatment group.

Provision of messenchymal stem cells and omental patches are significant against wound healing of New Zealand male white rabbit lesions. The results of the comparison test LSD Post Hoc test across all treatment groups gained significantly different results ($p < 0.05$), so this proves that the influence of omental patch + messenchymal stem cells have the most effective impact.

Keywords: New zealand white male rabbit, intestinal abrasion, omental patch, messenchymal stem cell