

Pengaruh pemberian obat Ls terhadap fungsi hati ditinjau dari aktivitas Alanin Aminotransferase plasma dan gambaran histologi hati pada tikus Putih

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Abstrak

LS drug is a synthetic of statin group that has been used as an antihyperlipidemia. The LS drug has been used long-term repeated administration must be assessing especially for liver function of rat through alanine aminotransferase (ALT) activity plasma and histological structure. This study used Sprague Dawley rats that is divided into 4 groups, each one consist of 10 male and female rats. Group I, II, III were given statin with 1,8; 3,6; 7,2mg/ 200g bw dosage as a study groups, while group IV was given CMC 0,5% orally as a control group. The studies have been finished for 90 days and 91st day, the blood samples were taken from orbital sinus of eye, and the liver was taken to observe its histology. The ALT plasma activities were measured with colorimetric method (Reitman-Frankel) and histological structure were colored by paraffin method and Haematoxylin-Eosin stain by further central vein diameters was measured. One way varian analysis of ALT plasma activities and central vein diameter ($p = 0,05$) showed that there was no significant differences between studies groups and control group. The result was indicated that given LS drug for 90 days did not have sigificant effect on the liver function.

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Obat LS merupakan obat sintesis golongan statin yang digunakan sebagai antihiperlipidemia. Obat LS digunakan berulang dan dalam jangka panjang sehingga perlu diketahui pengaruhnya terhadap fungsi hati, dengan menilai aktivitas Alanin aminotransferase (ALT) plasma dan gambaran histologi hati. Penelitian menggunakan tikus putih jantan dan betina galur Sprague Dawley yang dibagi ke dalam empat kelompok masing-masing 10 ekor. Kelompok I, II, III adalah kelompok perlakuan yang diberi larutan uji dengan dosis berturut-turut 1,8; 3,6; dan 7,2mg/ 200g bb perhari. Kelompok IV adalah kelompok kontrol yang diberikan larutan CMC 0,5%. Penelitian dilakukan selama 90 hari dan pada hari ke-91 sampel darah tikus diambil melalui sinus orbital mata kemudian dibedah untuk diambil hatinya. Pengukuran aktivitas ALT plasma menggunakan metode kolorimetri (Reitman-Frankel) serta histologi hati dengan metode parafin dan pewarnaan hematoksilin-eosin kemudian dilakukan pengukuran terhadap diameter vena sentralis. Hasil ANAVA ($p=0,05$) terhadap ALT plasma dan pengukuran diameter vena sentralis tidak menunjukkan perbedaan bermakna antar kelompok perlakuan maupun kelompok kontrol. Hasil menunjukkan bahwa pemberian obat LS selama 90 hari tidak mempengaruhi fungsi hati.