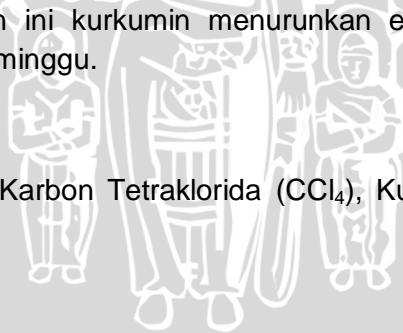


ABSTRAK

Fibrosis hati merupakan penyakit hati kronik yang disebabkan oleh terbentuknya jaringan ikat akibat akumulasi protein *Extracellular Matrix* (ECM) yang menyebabkan gangguan arsitektur hati. Fibrosis hati akibat karbon tetraklorida (CCl₄) menyebabkan kerusakan pada hati. Jejas yang terjadi secara terus menerus mengaktifasi berbagai sitokin proinflamasi yaitu Interleukin-17 (IL-17). Aktivasi IL-17 menyebabkan *Hepatic Stellate Cell* (HSC) menjadi hiperaktif dan memicu peningkatan sintesis ECM. Kurkumin memiliki efek hepatoprotektif karena kandungan antioksidan, sehingga dapat mencegah kerusakan sel hepar. Tujuan penelitian ini untuk mengetahui pengaruh lama pemberian kurkumin terhadap penurunan ekspresi IL-17 jaringan hati tikus model fibrosis yang diinduksi karbon tetraklorida (CCl₄). Penelitian ini merupakan penelitian eksperimental *in vivo* pada hewan coba tikus putih (*Rattus norvegicus*) strain wistar. Sampel dibagi menjadi 8 kelompok, terdiri dari kontrol negatif (KN), kontrol positif model fibrosis (KP), kelompok perlakuan fibrosis yang diberi kurkumin 200 mg/kgBB selama 2 minggu (KP-2), selama 5 minggu (KP-5), dan selama 9 minggu (KP-9). Ekspresi IL-17 diukur menggunakan metode immunohistokimia. Dari hasil penelitian ini, didapatkan perbedaan yang bermakna antar kelompok (ANOVA $p=0,012$), pada uji korelasi *Pearson*, hubungan antara lama pemberian kurkumin dengan penurunan ekspresi IL-17 jaringan hati memiliki korelasi yang lemah, signifikan, dan bersifat dua arah. Kesimpulan dari penelitian ini kurkumin menurunkan ekspresi IL-17 jaringan pada pemberian selama 2 minggu.

Kata Kunci: Fibrosis hati, Karbon Tetraklorida (CCl₄), Kurkumin, Interleukin 17 jaringan hati.



ABSTRACT

Liver fibrosis is a chronic liver disease caused by the formation of connective tissue due to accumulation of protein *Extracellular Matrix* (ECM) that cause architecture liver disruption. Fibrosis of the liver caused by carbon tetrachloride (CCl₄) cause damage to the liver. The lesion that occurs continuously activates proinflammatory cytokines, namely interleukin-17 (IL-17). Activation of IL-17 causes the *Hepatic Stellate Cell* (HSC) becomes hyperactive and leads to increased synthesis of ECM. Curcumin has hepatoprotective effect due to antioxidants, which can prevent damage to liver cells. The purpose of this study to determine the effect duration of curcumin on the expression of IL-17 decrease in liver tissue fibrosis induced rat model of carbon tetrachloride (CCl₄). This study was an experimental study *in vivo* in rats (*Rattus norvegicus*) Wistar strain. The samples were divided into 8 groups, consisting of a negative control (KN), the positive control models of fibrosis (KP), the treatment group fibrosis by curcumin 200 mg/kg for 2 weeks (KP-2), for 5 weeks (KP-5), and for 9 weeks (KP-9). Expression of IL-17 was measured using immunohistochemical methods. From these results, obtained significant difference between groups (ANOVA $p = 0.012$), from the Pearson correlation test, the relationship between the duration of curcumin with decreased expression of IL-17 liver tissue has weak correlation, significant, and is two-way. The conclusion of this study curcumin decreased the expression of IL-17 in rat's liver tissue in the provision for 2 weeks.

Keywords: Liver fibrosis, Carbon Tetrachloride (CCl₄), Curcumin, Interleukin 17 liver tissue.