

# **PENGARUH PEMBERIAN ZINK TERHADAP GAMBARAN HISTOPATOLOGI HATI MENCIT JANTAN (*Mus musculus*) YANG DIINDUKSI ANTIKANKER SIKLOFOSFAMID**

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## **Abstrak**

Penelitian ini dilakukan untuk mengetahui bagaimana pengaruh zink terhadap gambaran histopatologi hati mencit yang diinduksi obat siklofosfamid. Penelitian ini menggunakan 30 mencit jantan yang dibagi dalam 6 kelompok. Kelompok kontrol negatif tidak diberikan zink dan siklofosfamid, kontrol positif I hanya diberikan zink, kontrol positif II hanya diberikan siklofosfamid, serta 3 kelompok perlakuan diberikan siklofosfamid 200 mg/Kg dan zink dengan dosis masing-masing zink 25 mg/Kg, 50 mg/Kg, dan 100 mg/Kg. Pemberian perlakuan dilakukan selama 35 hari yang dilanjutkan pembedahan, pengambilan hati, pembuatan preparat dan pewarnaan Hematoksilin-Eosin. Kerusakan hati dinilai menggunakan skor *Manja-Roenigk*. Kontrol positif I memiliki skor terendah sedangkan kontrol positif II memiliki skor tertinggi. Hasil uji *One Way ANOVA* menunjukkan nilai signifikansi ( $p= 0,000$ ). Dosis zink paling efektif untuk memperbaiki gambaran histopatologi hati mencit adalah 100 mg/Kg. Hasil penelitian ini menunjukkan zink berpengaruh dalam memberikan perbaikan gambaran histopatologi hati mencit yang diinduksi dengan siklofosfamid.

**Kata Kunci:** Hati, Siklofosfamid, Zink

**THE EFFECT OF ZINK ADMINISTRATION ON  
HISTOPATHOLOGICAL APPERANCE OF MALE MOUSE  
(*Mus musculus*) LIVER INDUCED BY ANTICANCER  
CYCLOPHOSPHAMIDE**

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**Abstract**

This study was conducted to determine the effect of zinc on the histopathological picture of the liver of mice induced by cyclophosphamide. This study used 30 male mice which were divided into 6 groups. The negative control group was not given zinc and cyclophosphamide, positive control I was only given zinc, positive control II was only given cyclophosphamide, and 3 treatment groups were given cyclophosphamide 200 mg/Kg and zinc with a dose of zinc respectively 25 mg/Kg, 50 mg/Kg, and 100 mg/Kg. The treatment was carried out for 35 days followed by surgery, liver harvesting, preparation of preparations and Hematoxylin-Eosin staining. Liver damage was assessed using the Manja-Roenigk score. Positive control I had the lowest score while positive control II had the highest score. One Way ANOVA test results show a significance value ( $p= 0.000$ ). The most effective zinc dose to improve the histopathological picture of the liver of mice is 100 mg/Kg. The results of this study showed that zinc had an effect on improving the histopathological picture of the liver of mice induced by cyclophosphamide.

**Keywords:** Cyclophosphamide, Liver, Zinc,