Putri Olivia Rahman, 2019, **Pengaruh Antioksidan *Curcumin* pada Kadar dan Profil Protein Lien Mencit (*Mus musculus*) yang Dipapar Logam Berat Timbal,** skripsi ini di bawah bimbingan Sugiharto, S. Si., M. Si. dan Dr. Sri Puji Astuti W., M. Si. Departemen Biologi, Fakultas Sains dan Teknologi, Universitas Airlangga, Surabaya.

ABSTRAK

Penelitian ini bertujuan untuk mengetahui pengaruh antioksidan *curcumin* pada kadar dan profil protein lien mencit yang dipapar logam berat timbal. Hewan coba yang digunakan sebanyak 25 ekor mencit jantan galur BALB/c. Hewan coba dibagi menjadi 5 kelompok yaitu P1 (kontrol), P2 (Pb 75 mg/kg BB), P3 (Pb 150 mg/kg BB), P4 (Pb 75 mg/kg BB+*curcumin* 20 ppm), dan P5 (Pb 150 mg/kg BB+*curcumin* 20 ppm) yang masing-masing terdiri dari 5 ekor mencit dalam satu kelompok. Pemberian timbal (Pb) dan *curcumin* juga dilakukan secara peroral selama 30 hari. Mencit dibedah untuk diambil organ lien dan darahnya. Lien akan diekstraksi yang dilanjutkan dengan pengukuran kadar protein dan elektroforesis. Darah yang diambil digunakan untuk perhitungan jumlah jenis leukosit. Data jumlah jenis leukosit diolah dengan menggunakan *SPSS* 12. Pengolahan data dilakukan dengan menggunakan uji normalitas dengan *One-Sample* Kolmogorov Smirnov, kemudian uji homogenitas dengan *Levine's Test*, kemudian dengan uji *One Way* Anova dan uji Duncan. Dari hasil pengukuran kadar protein diketahui bahwa pemberian Pb dan Pb+*curcumin* dapat menurunkan nilai kadar. Dari hasil elektroforesis pita protein yang diberi Pb nampak lebih tebal pada protein tertentu dan pemberian *curcumin* merubahnya menjadi tipis kembali. Pada hasil jumlah jenis leukosit, pemberian Pb dan *curcumin* tidak berpengaruh terhadap limfosit dan monosit, tetapi berpengaruh terhadap granulosit. Hasil penelitian ini menunjukkan bahwa pemberian *curcumin* berpengaruh terhadap kadar protein, mampu menghambat beberapa pita protein dan mempengaruhi jumlah granulosit.

Kata Kunci: *Curcumin,* Kadar Protein, Leukosit, Lien, Profil Protein, Timbal (Pb).

Putri Olivia Rahman, 2019, **The Effect of Curcumin as an Antioxidant to The Level and Profile of The Protein Spleen of Mice Exposed to Lead (Pb)**, this thesis was under guidance by Sugiharto, S. Si., M. Si. and Dr. Sri Puji Astuti W., M. Si. Departement of Biology, Faculty of Science and Technology, Airlangga University, Surabaya.

ABSTRACT

This study aims to determine the effect of curcumin as an antioxidants on the level and profile of the spleen proteins in mice exposed to lead (Pb). The experimental animals used were 25 males with BALB/c mice. The experimental animals were divided into 5 groups, namely P1 (control), P2 (Pb 75 mg/kg BB), P3 (Pb 150 mg/kg BW), P4 (Pb 75 mg/kg BW+curcumin 20 ppm), and P5 (Pb 150 mg/kg BW+curcumin 20 ppm) which each consisted of 5 mice in each group. Lead (Pb) and curcumin experience carried out orally for 30 days. Then the mice are dissected to take spleen organ and blood. Lien will be extracted followed by measurement of protein levels and electrophoresis. Blood taken is used to test the percentage of leukocyte cell types. Data on leukocyte cell types are processed using SPSS 12. Data processing was performed using the normality test with Kolmogorov Smirnov's One-Sample, then the homogeneity test with Levine's Test, then One Way Anova test and Duncan test. From the results of measurements of protein levels that is known that the granting of Pb and Pb+curcumin could reduce protein levels. From the results of electrophoresis, the protein bands that given Pb looked thicker in certain protein and given curcumin changes it to thinner again. In the results of leukocyte types, the administration of Pb and curcumin does not affect lymphocytes and monocytes, but can affect on granulocyte. The result of this study indicated that giving curcumin has an affect on protein levels, is able to inhibit protein bands and increase the percentage of granulocyte.

Keywords: Curcumin, Lead (Pb) Leukocyte, Levels Protein, Protein Profile, Spleen.