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In vivo quercetol effect in lead acetate poisoning

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Abstract The present study investigated the influence of quercetol upon δ-aminolevulinic acid (Δ –ALA) urine concentration as marker of lead poisoning. The study was conducted on six lots of 6 mature Wistar rats of both sexes, lots not poisoned treated with different concentrations of quercetol (Q1, Q2), control (L6M), lot poisoned untreated (L3Pb), lots poisoned and treated with Q (L4Q1Pb and L5Q2Pb). After 11 days urine from 24 hours was collected for Δ-ALA spectrophotometric assay and testing the significance of mean difference of by "t" test Student at $p < 0.05$. Statistical analysis of the data presented shows that compared to L2Q2 and L6M the amount of δ-ALA excreted in urine under quercetol influence (L4Q1Pb) shows statistical significance compared to (L2Q2) the amount of δ-ALA excreted in urine compared to (L3Pb) shows statistical significance. Different concentrations of quercetol (Q1, Q2), did not produce significant changes in the δ-ALA excreted compared with values of (L3Pb). Difference between means is probably due to sampling fluctuation, is not significant, reduced growth to eliminate δ-ALA on L4Q1Pb and L5Q2Pb is believed to be due to iron complex formation, reducing hemoglobin synthesis. From the results we conclude that hem biosynthesis does not start to grow under quercetol protection. The obtained data are not relevant statistical since interpretations were performed on non homogeneous groups in number of individuals, the percentage of mortality variability and high levels of standard deviation calculated from each lot.

Keywords: lead acetate poisoning, quercetol, δ-aminolevulinic acid urine assay, possible antidote.

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