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Effect of garlic nanoparticles on bone marrow function and antioxidants status in experimentally anemic male rats

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Abstract---Background and Objective: This study was aimed the possibility of using garlic (extract and nanoparticles) in alleviating of bone marrow function and antioxidant status in anemic male rats induced by phenylhydrazine(PHZ). Materials and methods: The CNP-G was prepared according to [1]. Anemia was induced by phenylhydrazine intraperitoneal (20 mg/kg) for 2 consecutive days. A total of 60 adult male albino rats were used in the present study, at the age of 2 months with body weight 195 ± 15 gm were divided randomly to six equal groups (10 rats for each) and treated as follows for 8 weeks:- Control group:- in this group animals left without any treatment like negative control.T1: animals in this group was induced anemia and untreated as positive group. T2: animals in this group still normal (no anemic) but treated with daily dose 35.4mg/kg of extract garlic given orally by stomach tube. T3: animals in this group were induced anemia and treated with daily dose 35.4mg/kg of extract garlic given orally by stomach tube. T4: animals in this group still normal (no anemic) but treated with daily dose 35.4mg/kg of CNP-G given orally by stomach tube. T5: animals in this group were induced anemia and treated with daily dose 35.4mg/kg of CNP-G given orally by stomach tube. At the end of the experiment, all animals were sacrificed and blood samples (5ml) were collected directly from the heart by the cardiac puncture. Results: Induction of anemia in rats significantly ($P<0.05$) decreased red blood cell count (RBC), hemoglobin concentration (Hb), PCV, and total antioxidant capacity . The affect anemic on bone marrow showed by increase adipose tissue within bone marrow. After treatment rats with garlic