Influence of beers of different alcohol concentration on haematological indices of male albino rats

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This study investigated the influence of beers of different alcohol concentration on haematological indices of male albino rats. Three brands of beers commonly consumed within Nigeria were purchased and administered to the experimental animals for 21 days. The alcohol concentrations of beer A, B and C were 2%, 5.2% and 7.5% respectively. Group 1 was the control. Group 2 and group 3 were administered 10 mL/kg bw and 20 mL/kg bw of beer A respectively. Group 4 and group 5 were administered 10 mL/kg bw and 20 mL/kg bw of beer B respectively, while group 6 and group 7 were administered 10 mL/kg bw and 20 mL/kg bw of beer C respectively. The haematological analysis was carried out using haematological auto-analyzer (Abacus 380). Result showed that white blood cell count increased in all the test groups compared with the control and was significant ($P<0.05$) in groups 3, 5, 6 and 7. Red blood cell (RBC), haemoglobin (Hb) and packed cell volume (PCV) showed no significant alteration ($P>0.05$) in all the test groups compared to the control. Platelet (PLT) and plateletcrit (PCT) increased significantly ($P<0.05$) in groups 2, 3, 4, 5 and 7 compared to the control. In conclusion, the result showed that consumption of these beers with different alcohol concentrations as used in this study may influence certain immune index, but may not induce anaemia. It also encourages the production of platelets and may promote stoppage of bleeding resulting from injury.

Keywords: Alcohol concentration, Anaemia, Beer, Haematology, Intoxication.

Biography

Dr. Chinedu Imo is a Senior Lecturer in the department of Biochemistry, Federal University Wukari, Nigeria. His area of specialization is Clinical/ Medical Biochemistry. He is a renowned researcher/speaker.