

EFFECT OF MAGNESIUM CHLORIDE AND DIMINAZENE ACETURATE ON ORGANS AND SERUM ENZYMES IN TRYPANOSOMA BRUCEI INOCULATED RATS

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Abstract

Thirty-five healthy albino rats were used for the investigation. The rats of both sexes weighing between 180 and 200g were divided into seven groups (A-G). The rats were inoculated with *Trypanosoma brucei* at (1×10^6). Parasitaemia was estimated using rapid matching method and wet mount method was used to assess parasitaemia. Groups A and F were negative and positive controls while B, C, D, E and G are tested groups that were treated using various regimens of Magnesium Chloride ($MgCl_2$) supplementation. The liver, kidney and spleen were harvested and weighed. The sera from various groups were analysed for Aspartate aminotransaminase (AST) , Alanine amino transaminase (ALT) and Alkaline Phosphatase (ALP) levels. The animals in group F showed marked hepatomegaly, renomegaly and splenomegaly with very high level of liver enzymes. The organ weights and enzyme levels of various supplemented groups improved significantly ($P < 0.05$) towards the normal, most especially group D. This shows that $MgCl_2$ and Diminazene aceturate must have acted, thus ameliorating the trypanosomosis.

Key words:

$MgCl_2$, *T. brucei*, Parasitaemia, Diminazene aceturate, Organs, Enzymes