



**AMELIORATIVE EFFECT OF METHANOL LEAF EXTRACT OF ACACIA  
NILOTICA (Linn) ON ANAEMIA AND OXIDATIVE STRESS INDUCED  
BY TRYPANOSOMA CONGOLENSE INFECTION IN WISTAR RATS**

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**ABSTRACT**

Previous reports have established the antitypanosomal potential of the stem bark extracts of *Acacia nilotica*. However, there is dearth of information with regards to the effects of the more abundant leaves of this plant against Trypanosomes. This study demonstrated the ameliorative effect of leaf extract of *A. nilotica* on the pathology induced by *Trypanosoma congolense* infection in Wistar rats. A total of 18 rats were randomly grouped into three groups of six each. Rats in groups I and II were each intraperitoneally inoculated with  $10^6$  trypanosomes. Following the onset of parasitaemia, rats in group I were treated orally with methanol leaf extract of *A. nilotica* (400 mg/kg) for 10 days, while those in groups II and III served as infected and non- infected controls respectively. Blood sample was collected from all the groups weekly (for 4 weeks post infection), for parasitaemia detection and quantification, packed cell volume (PCV) determination and erythrocytes osmotic fragility (EOF) test. The extract significantly ( $p < 0.05$ ) suppressed the parasitaemia in group I compared to group II. The PCV values of groups I and II showed significant ( $p < 0.05$ ) drop during the course of the experiment with no significant difference between the groups. There was increase in the EOF of group I and II at the 4<sup>th</sup> week of infection which was significantly ( $p < 0.05$ ) higher than that of group III. Thus, the leaf extract of *A. nilotica* at the tested dose, significantly suppressed parasitaemia but insignificantly ameliorated anaemia and oxidative stress induced by *T. congolense* in Wistar rats.

**Keywords:** *Acacia nilotica*, anaemia, oxidative stress, *Trypanosoma congolense*

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