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**Evaluation of acetone extract of *crinum jagus* bulbs on *plasmodium berghei* in Swiss albino Mice.**

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**Introduction:** Medicinal plants have been known as sources of antimalarial drugs and an increase in malaria parasite resistance to the available drugs has necessitated continued research that may lead to drug discovery. This

study investigated the acetone extract of *C. jagus* bulbs for its antiplasmodial activity (suppressive, prophylactic and curative activity) against *Plasmodium berghei* (NK 65 strain) in-vivo.





**Methodology:** Sixty Swiss albino mice were inoculated with *P. berghei* infected red blood cells. The animals were divided into four groups of five mice each for evaluation of each activity. Doses of 250mg/kg and 500mg/kg of the extract were administered orally to groups A and B with the aid of an oral cannula while chloroquine sulphate, 25 mg/kg/day was given as positive control to animals in group C and 0.2 ml of distilled water was administered to group D as negative control. Administrations were done for 4 consecutive days starting 2 hours after infection for evaluation of suppressive activity, 5 days for curative activity and 4 days for prophylactic activity.

**Results:** Phytochemical screening revealed the presence of alkaloids, flavonoids, steroids, carbohydrates, reducing sugar and tannins.

The extract produced 43.02% of parasitaemia suppression at a dose of 250mg/kg and 61.42%

suppression of parasitaemia at 500mg/kg ( $P < 0.05$  for both results when compared with chloroquine and negative control). The extract exhibited chemoprophylactic activity of 52.5% at 250mg/kg and 70.08% at the dose of 500mg/kg which were significantly ( $P < 0.05$ ) greater when compared to the negative control and chloroquine. The extract showed no curative activity against *P. berghei* parasites at the two doses tested.

**Conclusion:** The findings of this study showed that this extract may possess prophylactic and suppressive antiplasmodial activities which were dose-dependent. Further studies are suggested to elucidate the mechanism of these activities.

**Keywords:** *Crinum jagus*, Malaria, Parasite, *Plasmodium berghei*, Chloroquine

#### References

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