**Anti-inflammatory Activity of Cucumis sativus L.**


**Abstract:**

Aims: To evaluate the anti-inflammatory activity and acute toxicity of Cucumis sativus L.


Place and Duration of Study: Department of Biochemistry, University of Nigeria, Nsukka, Enugu State, 410001, Nigeria between April 2014 and November 2014.

Methodology: To evaluate anti-inflammatory activity, test substances that included whole Cucumis sativus L. homogenate were administered to four groups of Wistar rats. A control group received normal saline; a reference group received a standard anti-inflammatory drug, Diclofenac while 2 test groups received whole Cucumis sativus L. fruit homogenate, respectively. Inflammation of the right hind paw of rats was induced by subplantar injection of 0.1 ml of 2% agar-agar suspension and increases in paw volumes, which relate to anti-inflammation, were measured using the volume displacement method. To evaluate the acute toxicity of Cucumis sativus L. fruit homogenate, 20 albino mice grouped into five groups of four mice each with animals were used. Animals in different groups were orally administered with different amount of the whole fruit homogenate. The animals were monitored for dullness, nervousness, uncoordinated movement, and death within 24 hours after administration.

Results: Paw volume progressive decreased within 5.5 hours in test groups after administration of Cucumis sativus L. The administered Cucumis sativus L did not induce adverse effects on the mice within the concentration range of 0.5 mL/kg body weight to 5 mL/kg body weight test animals.

Conclusion: The whole fruit homogenate of Cucumis sativus L. had anti-inflammatory activity and no dose-dependent side effects.

**Keywords:** Cucumis sativus L.; inflammation; anti-inflammation; antioxidant; acute toxicity