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Effect of Jatropha curcas Leaf Extract on Castor Oil Induced Diarrhea in Albino Rats

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Abstract : Plants as therapeutic agents are used as drug in many parts of the world. Medicinal plants are mostly used in developing countries due to culture acceptability, belief or due to lack of easy access to primary health care services. Jatropha curcas is a plant from the Euphorbiaceae family which is widely used in Northern Nigeria as an anti-diarrheal agent. This study was conducted to determine the anti-diarrheal effect of the leaf extract on castor oil induced diarrhea in albino rats. The leaves of J. curcas were collected from Balanga Local government in Gombe State, north-eastern Nigeria; due to its bioavailability. The leaves were air-dried at room temperature and ground to powder. Phytochemical screening was done and different concentrations of the extract was prepared and administered to the different categories of experimental animals. From the results, aqueous leaf extract of Jatropha curcas at doses of 200mg/Kg and 400mg/Kg was found to reduce the mean stool score as compared to control rats, however, maximum reduction was achieved with the standard drug of Loperamide (5mg/Kg). Treatment of diarrhea with 200mg/Kg of the extract did not produce any significant decrease in stool fluid content but was found to be significant in those rats that were treated with 400mg/Kg of the extract at 2hours (0.05±0.02) and 4hours (0.01±0.01). A significant reduction of diarrhea in the experimental animals signifies it to possess some anti-diarrheal activity.

Keywords : anti-diarrhea, diarrhea, Jatropha curcas, loperamide
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