

THE EFFECT OF LUFFA ECHINATA (ROXB) ON EXPERIMENTAL JAUNDICE IN RATS

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Luffa echinata Roxb. popularly known as Bindaal in Hindustani is a slender herb belonging to the N.O. Cucurbitaceae and grown widely in India (3). Practitioners of the indigenous system of medicine, claim to obtain beneficial results with the fruits of this plant in the treatment of jaundice (4,1). We have now examined the aqueous extract of the fruits in jaundiced rats. The preliminary results appear to be promising.

MATERIALS AND METHODS

Authenticated fruits of *L. echinata* were obtained. The seeds were separated with great difficulty, because in doing so, workers experience profuse sneezing. The mesocarp was then powdered (40 mesh). The aqueous extract of the powdered drug was prepared by the method described earlier by Tewari and Coworkers (5). One ml. of this solution was equivalent to 25 mg. of the crude drug.

Jaundice in albino rats of either sex was induced by the intraperitoneal administration of chlorpromazine (2.5 mg/100g body weight). The serum bilirubin was estimated in the blood drawn from the heart of normal and jaundiced animals by the method of King (2). The extract of the fruits was fed to diseased rats by a stomach tube in varying doses. The bilirubin content of the blood was estimated after drug administration.

RESULTS

Preliminary results obtained are recorded in the table below :—

Group of Animals	Dose/100gm body wt.	No. of rats in each Group	Bilirubin of blood content after	
			48 hours; mg%	72 hours mg%
Normal control	—	20	1.5±0.01	1.6±0.02*
Jaundiced Rats	—	20	3.8±0.12	3.9±0.05
Jaundiced Rats treated with extract of <i>L. echinata</i>	25 mg	20	2.8±0.06	2.6±0.05
	50 mg	20	2.1±0.12	2.±0.10

*Figures represent mean S.E.

The drug did not lower the normal serum bilirubin of healthy rats.

*Part of the investigation was done in the Department of Pharmacology, G.S.V.M. Medical College, Kanpur.

The difference in values between the control and the extract treated animals are statistically significant ($P < 0.01$). We believe this test to show that the aqueous extract contains some water soluble active principle of the fruit of *L. echinata* which is responsible for producing this characteristic effect. The active principle is in the process of isolation. Further work to elucidate the mechanism of action of the drug is also in progress.

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SUMMARY

An indigenous plant *Luffa echinata* (Roxb.) is found to possess some active principle which lowers the raised blood bilirubin in rats.

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