
SHORT COMMUNICATIONS

THE ANTI-INFLAMMATORY ACTIVITY OF *DELONIX ELATA* GAMBLE
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DELONIX ELATA Gamble (Syn *Poinciana elata*) belonging to Caesalpiniaceae is frequently grown in tropical countries especially in avenues. The leaves and bark are recorded to have therapeutic value¹. In continuation of our work on this plant², we report here the polyphenolic constituents and anti-inflammatory activity of leaves.

Shade-dried leaves (500 g) collected from the campus of this college were extracted with 50% MeOH and fractionated in the usual way³.

From the MEK fraction, by preparative PC (Whatman No. 3, ascending, 15% HOAc) two flavonoidal glycosides were isolated. By λ_{max} and characteristic shifts with diagnostic reagents, acid hydrolysis, R_f , m.m.p. and direct comparison with authentic samples, the glycosides were confirmed to be Quercetin 3-O-galactoside and Quercetin 3-O-rhamnoglucoside.

Albino rats of either sex (130–150 g) were used as experimental models. The animals were given food and water *ad libitum* before and during the experiment. The crude aqueous concentrate of *D. elata* obtained after the removal of MeOH from 50% methanolic extract was injected i.p. at doses of 60, 120 and 240 mg/kg b.w. to three different groups of rats (5 in each group). As a reference, phenyl butazone 100 mg/kg b.w.i.p. was used. The method of Winter *et al*⁴ was adopted to study the inhibition of carrageenin-induced rat foot oedema. The results were expressed as increase in foot volume in ml over initial volume (table 1).

From these results, it is clear that aqueous concentrate of *D. elata* produces a dose-dependent inhibition of carrageenin-induced rat foot oedema. Its potency is maximum at higher doses, comparable to that of phenyl butazone. It is well known that rutin and related compounds have remarkable anti-inflammatory activity⁵. Hence from these reports, the anti-inflammatory activity of *D. elata* may be correlated to the presence of bioflavonoids *viz* rutin and Quercetin 3-O-galactoside which have been isolated from the aqueous concentrate.

Table 1 Effect of phenyl butazone and *D. elata* on carrageenin induced rat foot oedema

Treatment	Dose mg/kg bw	Mean increase in paw volume \pm SE (ml)	% inhibition
Control	—	0.28 \pm 0.01	—
Phenyl butazone	100	0.07 \pm 0.01	72
	60	0.16 \pm 0.01	43
<i>D. elata</i>	120	0.14 \pm 0.01	50
	240	0.12 \pm 0.01	58

29 August 1985; Revised 2 January 1986

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CHEMICAL TRANSFORMATIONS OF 1-METHYL-2 α -ACETOXY-4 β -ISOPROPENYL BICYCLO (3, 1, 0) HEXANE
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KROPP *ET AL*¹ reported that dehydration of 3- β -hydroxy carane-4 α -acetate (I) by POCl₃/pyridine afforded a mixture of the two unsaturated acetates, both containing $>C=CH_2$ grouping. These two compounds have been isolated in the pure state and identified as (II) and (III). Epoxidation studies of compound (II) and the rearrangements of the epoxide