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Relaxant activity of raspberry (*Rubus idaeus*) leaf extract in guinea-pig ileum in vitro.

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Tea made from the leaves of *Rubus idaeus* L. (raspberry) has been used for centuries as a folk medicine to treat wounds, diarrhoea, colic pain and as a uterine relaxant. Extracts of dried raspberry leaves prepared with different solvents, (n-hexane, ethyl acetate, chloroform and methanol) were tested in vitro for relaxant activity on transmurally stimulated guinea-pig ileum. The methanol (MeOH) extract exhibited the largest response and also indicated that the active compounds are of a relatively polar nature. Hence the bulk of the leaves were extracted with methanol and the dried extract fractionated on a silica gel column, eluting with chloroform, mixtures of chloroform and methanol and finally methanol. Each fraction was examined by thin layer chromatography and tested for relaxant activity in an in vitro transmurally stimulated guinea-pig ileum preparation. The fractions eluted with chloroform (CHCl<sub>3</sub>) lacked relaxant activity. Samples eluted with CHCl<sub>3</sub>/MeOH (95:5) had moderate relaxant activity, while a second distinctive peak of activity eluted with a more polar solvent mixture (CHCl<sub>3</sub>/MeOH 50:50) provided strong dose dependent responses. Evidence was obtained that there are at least two components of raspberry leaf extract which exhibit relaxant activity in an in vitro gastrointestinal preparation.

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