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Ex vivo histamine antagonistic studies of *Borassus flabellifer* L seed coat methanol extract

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Histamine is an intercellular chemical messenger and plays a critical role in several diverse physiological processes. Four human G-protein coupled histamine receptor subtypes (H_{1-4}) are currently recognized to mediate various actions of monoamine histamine. Among the four subtypes, the histamine H_1 receptor has been an attractive target for drug discovery for several years and H_1 receptor antagonist have proved to be effective therapeutic agents for respiratory distress, thus contributing to an important class of drugs today.

Preliminary histamine antagonistic activity studies of *Borassus flabbellifer* L. were carried out based on contraction response curve of isolated Guinea pig ileum using Kymo graph. Male guinea pigs (250-400 g) were sacrificed by bowl to the base of the skull and cervical dislocation. Cleaned ileal segments of 2-4 cm long were fixed one end on glass aerating tube and other to isotonic transducer connected to smoked drum to record histamine induced ileum contraction responses, which were further calculated in presence of different concentrations of compound to demonstrate antagonistic activity. Saline and myperamine were used as negative control and positive control respectively. The whole preparation set up in organic bath maintained with continuous flow of aerated [O_2:CO_2 (95:5)] tyrode solution.

40% of guinea pig ileum histamine responsive contraction Inhibition was observed at 100 μgml^{-1} concentration of seed coat extract. Further compound isolation and identification was under progress. Myperamine (positive control) showed complete histamine induced ileum contraction response was completely inhibited at 100 μgml^{-1} dose.

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