

EFFECTS OF FRESH JUICES OF *ANANAS COMOSUS* (PINEAPPLE) AND *CARICA PAPAYA* (PAW PAW) ON GASTRO INTESTINAL MOTILITY

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ABSTRACT

The sweet tastes of *Ananas comosus* and *Carica papaya* fruits coupled with acclaimed health benefits may be the reason for their wide spread consumption. In this study the effects of the juices on the Amplitude and number of rhythmic contractions of an isolated Rabbit jejunum were studied and results obtained along with that of standard parasympathomimetic and sympathomimetic agents were compared to basal values. In the work, fasted Rabbits were euthanized by stunning and the jejunum was carefully isolated. 2-3cm of this tissue was cut and mounted in a 35cm³ organ bath supplied with oxygen and maintained at 37⁰C. Graded doses of Acetylcholine, Noradrenaline, *Ananas comosus* juice and *Carica papaya* juice were administered at different times. The procedure was repeated five times to obtain mean Amplitudes and number of contractions per minute. Acetylcholine increased both Amplitude and number of contractions while Noradrenaline reduced same. Fresh juice of *Ananascomosus* increased Amplitude of contraction while fresh juice of *Carica Papaya* fruit decreased both Amplitude and number of contractions per minute. *Ananas comosus* may have achieved this effect by enhancing the activity of endogenous Acetylcholine, disrupting the activity of calcium channel and inhibiting endogenous myosin phosphatase, while *Carica papaya* juice may have achieved relaxation of the jejunum due to its effect on adrenergic receptors or by inhibition of the activity of endogenous Acetylcholine. The resultsobtained agree with popular use on *A. comosus* juice but fail to agree completely on *C. papaya* juice.

KEYWORDS: Acetylcholine, Adrenaline, *Ananas comosus*, *Carica papaya*, Jejunum, Parasympathomimetic, Sympathomimetic