

SPASMOLYTIC ACTIVITY OF THE AQUEOUS AND ETHANOL CELERY LEAVES (*APIUM GRAVEOLENS L.*) EXTRACTS ON THE CONTRACTION OF ISOLATED RAT ILEUM

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Celery (*Apium graveolens L.*) is a plant species in the family *Apiaceae*, which has been used in traditional medicine for the treatment of gastrointestinal diseases. This study investigated the effects of aqueous and ethanol extracts from celery leaves on intestinal contractility.

Air-dried and powdered leaves were extracted with distilled water and 96% ethanol, respectively. The activities of the extracts on the smooth muscle contractions were evaluated using isolated rat ileum model. The isolated rat ileum was mounted in a 10ml tissue bath.

The results suggest that the cumulative concentrations of the extracts of celery statistically significantly inhibited spontaneous rat ileum contractions ($p < 0.01$). The extracts dose-dependently reduced the contractile effects of acetylcholine on the isolated ileum ($p < 0.05$). Ethanol extract exhibited significantly greater relaxant activity than the aqueous extract ($p < 0.05$). These results suggest that the aqueous and ethanol extracts of celery leaves can produce the inhibition of the spontaneous rat ileum contractions and contractions induced by acetylcholine.

These data indicate that celery extracts act as intestinal smooth muscle relaxants, which justifies their use in gastrointestinal disorders. *Acta Medica Medianae* 2015;54(2):11-16.

Key words: *Apium graveolens L.*, intestinal motility, rat, ileum