

EFFECTS OF THE ETHANOLIC LEAF EXTRACT OF *ANETHUM GRAVEOLENS* L. ON CONTRACTILE ACTIVITY OF ISOLATED RAT ILEUM AND TRACHEA

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Dill (*Anethum graveolens* L., Apiaceae) has been used for centuries as a spice, as well as a remedy for gastrointestinal problems in traditional medicine. The aim of this study was to evaluate the effects of the ethanolic leaf extract of *Anethum graveolens* L. (AGEE) on the smooth muscle contractile activity of rat isolated ileal and tracheal strips. AGEE was obtained by using ultrasonic extraction from air-dried and powdered leaves of cultivated *Anethum graveolens* L. This study examined the effects of AGE on the spontaneous, KCl (80 mM), Acetylcholine and CaCl₂-induced smooth muscle contraction of isolated rat ileum, as well as on the contractile activity of isolated rat trachea induced by Carbachol and KCl (80 mM). Results showed that AGEE produced significant ($p < 0.01$) concentration-dependent relaxation of spontaneous and induced contractions of ileal smooth muscle. Addition of AGEE significantly ($p < 0.01$) reduced in a dose dependent manner the contractile effects of the carbachol and KCl on the isolated rat trachea. Our findings indicate that AGEE decreased contractile response of rat ileal and tracheal smooth muscle. *Acta Medica Medianae* 2023;62(2): 23-30.

Key words: dill, *Anethum graveolens* L., extract, rat, ileum, trachea.