

Abstract:

The isolation for the first time from *Artemisia monosperma* (Compositae) of the known flavone eupatilin and its effects on rat isolated smooth muscle preparations are described. In concentrations from 10^{-7} M to 3×10^{-4} M, eupatilin (5, 7-dihydroxy-6, 3', 4'-trimethoxyflavone) inhibited in a reversible manner the phasic contractions and the tone of rat isolated ileum, uterus, and urinary bladder. It relaxed the tonic contractions of the phenylephrine-precontracted pulmonary artery and acetylcholine-precontracted trachea. Eupatilin also shifted the concentration-effect curves of acetylcholine and calcium chloride on rat isolated ileum, oxytocin concentration-effect curve on uterine smooth muscle and phenylephrine concentration-effect curve on pulmonary artery smooth muscle. These observations indicate that eupatilin possesses a nonspecific antispasmodic effect on rat isolated smooth muscle. They also suggest that the inhibitory effect of eupatilin may be mediated by changes in Ca^{2+} metabolism in these preparations.