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Antispasmodic Effect of *Cistus Ladaniferus* Essential Oil on Isolated Rodent Jejunums

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Abstract

The essential oils were obtained by hydro-distillation from aerial parts, leaves and flowers of *Cistus ladaniferus* (EOCL). They were analyzed for their chemical composition by GC/MS. Twenty six compounds, representing 93.03 % of the oil were identified, with cubenol (25.88%), viridiflorol (13.90%), α -cadinene (13.49%) and Camphene (5.44%) being the major constituents. The EOCL showed concentration-dependent (2-30 ng/ml) and reversible inhibition of spontaneous movements of rabbit jejunum. Submaximal contractions induced by 60 mM KCl or Carbachol were concentration dependently inhibited by EOCL with IC₅₀ value of 6.25 ± 0.61 ng/ml and 50.02 ± 0.2 ng/ml respectively. The concentration contraction curves to CaCl₂ and Carbachol in rat jejunum were displaced to the right by EOCL in a non-competitive manner, with a depression of the maximum contractile response. The antagonism they exert on CCh, and KCl above mentioned contractions seems to be functional, because it is not specifically directed toward any particular receptor.

Keywords: *Cistus ladaniferus*, Essential oil, Jejunum, Antispasmodic and Smooth muscle.

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