

Analgesic and gastrointestinal motility profile of essential oil from *Myrtus communis* leaves

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Abstract

In the present research work the essential oil of *Myrtus communis* Leaves were tested for their analgesic and gastrointestinal motility. The analgesic effect was evaluated in mice, using acetic acid induced writhing test and effect on GIT motility was also tested in mice using charcoal as marker in intestine. The essential oils showed dose dependent analgesic effect in comparison with standard drug and significantly ($P < 0.05$) inhibited the writhing at 100 and 150 mg/kg, while the analgesic effect was non-significant at the dose of 50 mg/kg. In case of GIT motility the oils were good laxative at low dose (50 mg/kg) while with increasing the dose the motility was not significant. It can be concluded that the oils should be used for constipation in low dose while for analgesic effect its high dose is required.

Keywords: *Myrtus communis*, Analgesic; Gastrointestinal motility

Introduction

Myrtus communis L. (myrtle) is a common and widespread annual shrub, and the sole representative of the family, Myrtaceae in the Mediterranean Basin, that has been used since ancient times for medicinal, food and spices purposes. The leaves contain tannins, flavonoids such as quercetin, catechin and myricetin derivatives and volatile oils (Baytop, 1999). In essential oil of *M. communis* species, eucalyptol (1) was the predominant component (50.13%). The other important components were linalool (2) (12.65%), terpineol (3) (7.57%) and limonene (4) (4.26%). According to another study essential oil of leaves of *M. communis* study contains pinene (5), limonene (4) and eucalyptol (1) of the (Flamini et al., 2004). The decoction of leaves and fruits was useful for sore washing. The decoction of the leaves is still used for enemas and against respiratory diseases (Maccioni et al., 2007). The essential oil obtained from the leaves by steam distillation is also important in perfumery (Baytop, 1999). It is known to possess antioxidant, antibacterial, and antiseptic agent (Zanetti et al., 2010). The present study on the essential oil of *Myrtus communis* for analgesic and anti-constipating