

EVALUATION OF ANTI-SPASMODIC ACTIVITY OF *CITRUS* ESSENCES HARVESTED LOCALLY IN CHLEF REGION (ALGERIA): *IN VIVO* STUDY

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ABSTRACT

Essences were extracted by cold expression methods from four varieties of *Citrus* harvested in Chlef region: *C. Sinensis*, *C. paradisi*, *C. reticulata* et *C. aurantium*. The characterization of the essences was done by gas chromatography coupled to mass spectrometry (GC/ MS) in order to evaluate the quality and composition of the semolecularspecies.

The antispasmodic activity of these species has been tested with a dose of 3 to 4 ml / kg by oral route in mice (MORINI) after the pain caused by acetic acid. The results obtained were compared with those of standard treatment (Spasfon). The evaluation of the percentage of inhibition of pain indicated that the *Citrus* essence possessed an anti-spasmodic effects with 74, 09±4, 64% for *Citrus aurantium*, 70,39±5,06% for *Citrus sinensis*, 64,12±4,45 % for *Citrus reticulata* and 59, 28±3,64 % for *Citrus paradisi*. We can conclude that *Citrus* essences significantly reduced spasm. This effect could be attributed to the bioactive compounds present in the essences such as: limonene.

KEYWORDS: Antispasmodic Activity, *Citrus*, Cold Expression, GC / MS