

Pharmacological Activity of (*R*)-(+)-Pulegone, a Chemical Constituent of Essential Oils

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Z. Naturforsch. **66c**, 353–359 (2011); received April 24, 2010/March 10, 2011

(*R*)-(+)-Pulegone is a monoterpene found in essential oils from plants of the Labiatae family. This compound is a major constituent of *Agastache formosanum* oil. In this study, the effect of (*R*)-(+)-pulegone on the central nervous system was evaluated. (*R*)-(+)-Pulegone caused a significant decrease in ambulation and an increase in pentobarbital-induced sleeping time in mice, indicating a central depressant effect. (+)-Pulegone also significantly increased the latency of convulsions as assessed by the pentylenetetrazole (PTZ) method. The antinociceptive properties of this monoterpene were studied in chemical and thermal models of nociception. Chemical nociception induced in the first and second phase of the subplantar formalin test was significantly inhibited by (*R*)-(+)-pulegone and was not blocked by naloxone. Thermal nociception was also significantly inhibited while (*R*)-(+)-pulegone increased the reaction latency of the mice in the hot plate test. These results suggest that (*R*)-(+)-pulegone is a psychoactive compound and has the profile of an analgesic drug.

Key words: Essential Oils, Antinociceptive Activity, Analgesic