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Neuropharmacological Properties of the Essential Oil of Bergamot for the Clinical Management of Pain-Related BPSDs

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Abstract

..... Alzheimer's Disease (AD) accounts for approximately 50% of all cases of dementia and, in spite of the great effort for the development of disease-modifying drugs, a definitive treatment of cognitive impairment is not available yet. A perfect adherence to the current therapy of cognitive decline is needed for a better control of the disease and this is proven to reduce, though not completely abolish, the associated Behavioural and Psychological Symptoms of Dementia (BPSDs) from occurring. This cluster of symptoms, remarkably affecting patients' health-related quality of life (HRQL), is tightly associated with pain states. Antipsychotics are the only treatment for BPSDs. However, these drugs are more effective and safer in the short-term (6-12 weeks), they are able to manage aggression but not agitation and they cannot control pain. Aromatherapy with *Melissa officinalis* and *Lavandula officinalis* has been employed to handle BPSDs, but it has not provided strong evidence to offer relief from pain.

Bergamot Essential Oil (BEO) exerts antinociceptive activity through several pharmacological mechanisms: in particular, it is able to enhance autophagy, a process undergoing derangement in chronic pain. Thus, the sound pharmacological basis for clinical translation of aromatherapy with BEO in the treatment of BPSDs has been pointed out.

..... The antinociceptive effects elicited by BEO in experimental pain models make it a possible candidate for the pharmacological management of pain-related BPSDs.

..... Alzheimer's disease; Aromatherapy; behavioural and psychological symptoms of dementia (BPSDs); bergamot essential oil; dementia; pain..

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