



Study of analgesic activity of *Teucrium polium* extract

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Background and objectives: Pain is a primarily protective in nature, but often causes discomfort. Currently available analgesic drugs are not useful in all cases due to their side effects. Medicinal plants are believed to be an important source of new chemical substances with potential therapeutic effects, such as, *Teucrium polium* (TP) used traditionally to relieve headache, rheumatic arteritis and pain during pregnancy. The aim of this study is to clarify mechanism of antinociceptive effect of TP. **Methods:** This review article was carried out by searching studies in Pubmed, Google Scholar, SID and Science Direct by using the search keywords. In this review, 45 articles were found and 25 of them were applied. **Results:** Numerous studies indicate that *T. polium* contains strong analgesic properties through the effect of opoidergic, H1 and H2 receptors and alpha-2-adrenergic effect. Alpha-2-adrenergic induces analgesia through the direct effect on the spinal cord with both post-synaptic hyper polarization and restrain presynaptic transmission secretion therefore, primary afferent nerve fibers are blocked. **Conclusion:** The results indicated that the plant induces analgesic effects through the alpha-2-adrenergic mechanism. According to the findings, there are some evidences suggesting that the central and the peripheral effects of the plant extract may occur through the opioid and histaminergic system. Generally, present study proposes that *T. polium* possesses a strong antinociceptive property.

Keywords: alpha 2 adrenergic, analgesia, antinociceptive, *Teucruim polium*