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**Teucrium polium Inhibits Nerve Conduction and Carrageenan Induced Inflammation in the Rat Skin**

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**Abstract:** The effects of acute and chronic perineural treatment of the rat saphenous nerve with *Teucrium polium* (L.) extract on the conduction property of primary afferent nerve fibers and carrageenan-induced skin inflammation were studied. Direct application of 2.0% *T. polium* extract to the nerve trunk caused immediate complete inhibition of compound action potentials (CAPs) of all types of primary afferent nerve fibers. Partial recovery of CAPs was seen in up to 37.5% of Aab-fibers, 30.4% of Ad-fibers and 32.4% for C-fibers over one hour after removal of the extract. Fifteen to twenty days after a single perineural application of 2% *T. polium* extract, the CAPs of primary afferent nerve fibers were reduced to 60.78%  $\pm$  7.54 (n = 14) for A??-fibers, 67.39%  $\pm$  9.34 (n = 14) for Ad-fibers and 62.2%  $\pm$  8.25 (n = 14) for C-fibers. Carrageenan-induced acute skin inflammation was reduced to 56.86%  $\pm$  12.81 (n = 9) after local subcutaneous injection of the herb extract. These results indicate that *T. polium* contains one or more potent non-selective neurotoxic agents with anti-inflammatory activity.

**Key Words:** *Teucrium polium*, Sensory nerve, Neurogenic inflammation

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