Antispasmodic effect of *Dracocephalum kotschyi* extract on rat ileum contraction

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**Abstract:**

*Dracocephalum kotschyi* is traditional medicine which is believed to have antispasmodic and analgesic activities. The antispasmodic action of *D. kotschyi* essential oil has been shown in previous report. The objective of this research was to study antispasmodic activity of hydroalcoholic extract of *D. kotschyi* on ileum contractions. Hydroalcoholic extract was obtained from aerial part of *D. kotschyi* using percolation method. For antispasmodic studies, a portion of rat ileum was suspended under 1g tension in Tyrode’s solution at 37°C and gassed with O₂. Effect of the *D. kotschyi* extract was assessed on ileum contractions induced by KCl (80mM), acetylcholine (ACh, 500nM) and electrical field stimulation (EFS). The *D. kotschyi* extract concentration dependently inhibited the response to KCl (IC₅₀ = 36±5.1μg/ml), ACh (IC₅₀ = 101±9.5μg/ml), EFS-1 (IC₅₀ = 96±7.1μg/ml) and EFS-2 (IC₅₀ = 53±4.3μg/ml). From this experiment it was concluded that *D. kotschyi* extract possessed potent antispasmodic activity. Therefore, identification of the active component(s) is for identification of lead compound is recommended.

**Keyword:** *Dracocephalum kotschyi*; extract; antispasmodic; ileum.