

## The effects of *Nigella sativa* and its main component (thymoquinone) on nervous system

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### Abstract

**Objectives:** *Nigella sativa* (*N. sativa*) is an annual plant and widely used as medicinal plant in traditional medicine throughout the world. *N. sativa* has been suggested to be effective in the treatment of a wide range of disorders including coronary artery diseases, hypertension, stomach disorders, dysmenorrhea and learning and memory impairments. The seeds of the plant have been used traditionally in various disorders as well as a spice to ranges of Persian foods. *N. sativa* have therapeutic effects on tracheal responsiveness (TR) and lung inflammation on induced toxicity by Sulfur mustard.

**Martials and Methods:** All data of this review article were obtained by searching in; ISI Web of Knowledge, Medline/ Pubmed, Scopus, Google Scholar, Embase and Chemical Abstracts.

**Results:** *N. sativa* has anti-inflammatory, anti-atherosclerotic, antigenotoxic and cytotoxic activities. *N. sativa* has been widely used to treatment of various nervous system disorders such as Alzheimer disease, epilepsy, neurotoxicity, etc. The most of the therapeutic properties of this plant are due to the presence of some phenolic compounds especially thymoquinone (TQ), which is major bioactive component of the essential oil.

**Conclusion:** The present review is an effort to provide a comprehensive study of the literature on scientific researches of pharmacological activities of the seeds of this plant on induced neurotoxicity.

**Key words:** *Nigella sativa*, Thymoquinone, Constituent, Neuroprotective effect