

**Guest Editorial****Nigella sativa: A Potent Secondary Metabolite****Naseer Ahmed¹**¹Rehman Medical Institute, Peshawar, Pakistan*dr.naseer99@gmail.com

ARTICLE INFO

How to Cite:

Ahmed, N. (2022). Nigella sativa: A Potent Secondary Metabolite. Pakistan BioMedical Journal, 5(9). <https://doi.org/10.54393/pbmj.v5i9.803>

Nigella sativa, commonly known as black seed possess an extensive pharmacological potential and has emerged as a wonder herb with a rich historical and religious background. For decades, people all over the world have utilised N. sativa seeds and oil to treat a wide range of illnesses. Because black seed was stated as the cure for every illness except for death in one of the Prophetic hadiths, it is regarded by Muslims as one of the greatest forms of curative medicine accessible. Tibb-e-Nabwi (Prophetic Medicines) is another place where regular use of it is advised. In-depth research has been done on the chemical components of N. sativa. It primarily comprises fixed oil (24.76-40.35%), volatile oil (0.5-1.6%), alkaloids, saponins, and other substances in minute amounts. Thymoquinone seems to be primarily responsible for potent activities of N. sativa [2]. N. sativa seeds are frequently used to treat a wide range of illnesses, including bronchitis, asthma, diarrhoea, rheumatism, and skin conditions. It is also used to stimulate the immune system, fight parasite infections, and act as a digestive aid and anti-diarrheal [3]. It has been demonstrated that both the fixed oil of N. sativa and thymoquinone, prevent liposomes from undergoing non-enzymatic lipid peroxidation. It has been shown that administering the seed extract of N. sativa to rats for up to 12 weeks causes changes in the haemogram, including an increase in packed cell volume (PCV) and haemoglobin (Hb), as well as a decrease in the plasma concentrations of glucose, cholesterol, and triglycerides. The seeds have an extremely low level of toxicity, which distinguishes [4] them. Following topical application, two occurrences of contact dermatitis in two people have been documented. It has been demonstrated that administering the seed extract or its oil does not have a substantial negative impact on liver or kidney function [5]. It would seem that the cytoprotective and antioxidant properties of the seeds and thymoquinone, as well as their impact on various inflammatory mediators, may be connected to the positive effects of their use. Exploring the cellular and molecular mechanisms of action of the active components of N. sativa seed, particularly TQ, in health and diseases would require urgently further research using both human and animal models.

REFERENCES

- [1] Al-Bukhari MI and Sahi AB. The collection of authentic sayings of Prophet Mohammad (peace be upon him), division 71 on medicine. Hilal Yayinlari, Ankara, Turkey. 1976.
- [2] Ahmad A, Husain A, Mujeeb M, Khan SA, Najmi AK, Siddique NA, et al. A review on therapeutic potential of Nigella sativa: A miracle herb. Asian Pacific journal of tropical biomedicine. 2013 May; 3(5):337-52.
- [3] Abdel-Sater KA. Gastroprotective effects of Nigella Sativa oil on the formation of stress gastritis in hypothyroidal rats. International Journal of Physiology, Pathophysiology and Pharmacology. 2009; 1(2):143.
- [4] Al-Ghamdi MS. The anti-inflammatory, analgesic and antipyretic activity of Nigella sativa. Journal of Ethnopharmacology. 2001 Jun; 76(1):45-8.
- [5] Daba MH and Abdel-Rahman MS. Hepatoprotective activity of thymoquinone in isolated rat hepatocytes. Toxicology letters. 1998 Mar; 95(1):23-9