



International Journal of Pharmaceutical and Phytopharmacological Research (eIJPPR)

[Impact Factor – 0.852]

Journal Homepage: www.eijppr.com

Review Article

Therapeutic Uses of Shoneez (*Nigella sativa* Linn.) Mentioned in Unani System of Medicine - A Review

Abdul Nasir^{1*} Mohd. Yunus Siddiqui² Mohd. Mohsin³¹Clinical Registrar Majeedia Hospital, Jamia Hamdard, New Delhi, India²Associate Prof. Prof. Department of Moalejat, AKTC, AMU, Aligarh, India.³Assistant Prof. Department of Amraz-e-Jild wa Zohrawiyah, AMU, Aligarh, India.

Article info

Article History:
Received 26 March 2014
Accepted 04 July 2014

Keywords:
Kalonji, *Nigella sativa*,
Shooneez, Unani System of
Medicine.

Abstract

The seed of *Nigella sativa* Linn. from family Ranunculaceae commonly known as kalonji or Shooneez are used in Unani system of medicine and other traditional medicine. The seeds contain volatile oils (1.5%, consists of carvone, terpene or d-limonene and cymene). Fixed oil, tannins, resins, proteins, carbohydrate, sugars, Saponins, arachidic acid, arachidonic acid and other alcohol soluble organic acids. The seeds contain the amino acids e.g cystine, aspartic acid, glutamic acid, alanine, tryptophan, valine and leucine and lysine, and also enzyme lipase. Therapeutic uses of seeds of Shooneez (*Nigella sativa* Linn.) are mentioned in Unani system of medicine are ascitis, jaundice, zof-e-meda, nafakh-e-shikam qulanj, piles, hydrophobia, tertian fever, waj-ul-mafasil, waj-ul-qutn, paralysis and eyesores. It is also used in headache, nazla, sual (cough), asthma and used to expel kidney stone. It is also used in skin eruption (bahaq, bars), diabetes mellitus, hyperlipidemia etc. This article reviews the main reports of the therapeutic uses of Shooneez (*Nigella sativa* Linn.) and its constituents based on the available literature.

1. INTRODUCTION

Shooneez is derived from Persian word and applied for common name 'kalonji'. Scientific name is *Nigella sativa* Linn.^{1,4} from the family Ranunculaceae^{2,5}. It is also known as black seeds or black cumin. In old Latin, it is called as 'Panacea' meaning 'cure all' while in Arabic it is called as 'Habbah Sawda' or 'Habbat el Baraka' meaning 'seeds of blessing'³.

The historical references to these seeds are also found in some of the oldest religious and medical texts. For example, it is referred to as 'Melanthon' by Hippocrates and Dioscorides where as in Islamic literature it is mentioned as prophetic medicine because prophet Muhammad (PBUH) mentioned its therapeutic efficacy and potential of cure. It is stated in books of Seerat that Prophet Muhammad (PBUH), himself used to take these seeds with the syrup of honey for the herapeutic purpose. The Holy Prophet Muhammad (PBUH) said, "The black seeds (*Nigellea sativa*) are the remedy for every disease except death." His one companion, Abu Hurairah (Radi Allaho Anho) narrates, "I have heard from Prophet that there is cure for every disease in black seeds except death and black seeds are shooneez (Kalonji)"⁶.

But it is fact that black seeds have occupied special place for their medicinal value for centuries in the Middle East and Southeast Asia. They have been traditionally used in the treatment of a number of ailments like respiratory disorder, stomach and intestinal disorder, kidney disorder, hypertension, bladder and liver function disorder, circulatory and immune system problem for general overall wellbeing. There is an attempt has been made in this review to cover the major therapeutic uses of shooneez mentioned in Unani system of medicine and reported by the recent studies for *N. sativa* and its constituents.

*Corresponding Author:

Abdul Nasir,
Clinical Registrar
Majeedia Hospital, Jamia Hamdard,
Hamdard Nagar, New Delhi, India. Pin-110062
Email: nasirq125@gmail.com
Contact No. +91-9555987522

1.1 Brief introduction of Unani system of medicine

Unani system of medicine was originated in Greece and developed by Arabs into an elaborated medical science based on the framework of teachings of great Greek Philosopher & Physician Buqrat (Hippocrates) and Jalinooos (Galen). Unani System of Medicine was introduced in India by Arabs in 13th Century. After that it is on progress and adopted by thousands of people. Unani System of Medicine is applied for almost all diseases.

1.2 Alternative Names

Kamun Aswad, Habb-ul-Sauda (Arabic), Shooneez (Persian), Kalonji, Mungrela (Hindi), Kalonji (Urdu), Black Cumin, Small Fennel *Nigella* Seed (English)⁷⁻¹¹.

2. PLANT DESCRIPTION

Kalonji is an important medicinal crop of India which is found in North India and mostly cultivated in Panjab, Himachal pardesh, Bihar, Assam sometimes cultivated and an occasional weed of cultivation^{2,5,11}. A Pretty herb, 30-60cm high. Leaves; 2-3 pinnatisect, 2.5-5 cm long, cut intolinear or linear-lanceolate segments. Flowers pale blue on solitary long peduncles, 2-2.5 cm across. Sepals ovate, acute, clawed. Nectarial petals 8, geniculate, with a saccate gland in the knee, one on the face and one on the apex of each lobe. Carpels 5-7, inflated, warty at the sides, united at the top; beak as long as the ovary. Seeds flattened, oblong angular, rugulose tubercular, small, funnel shaped, 0.2cm long and 0.1cm wide black; odour slightly aromatic; taste bitter whole Seeds are used^{1,2,11}.

3. CHEMICAL CONSTITUENTS

Black seeds contain: Volatile oils (active constituents) 1.5%. It consists of Carvone (45-60), Terpene or d-limonene (carvene) and cymene. Fixedoil (Fattyacids) 3.7%, Tannins, Resins, Proteins, Carbohydrate, Sugars (glucose), Saponins, Arachidic acid, Arachidonic acid, other alcohol soluble organic acids. The seeds contain the following amino acids (cystine, aspartic acid, glutamic acid, alanine, tryptophan, valine and leucine and lysine) and also

enzyme lipase¹²⁻¹⁸. Recently Nigellimine is also isolated from the seeds^{16,17}. Minerals such as calcium, phosphorus and iron are present in higher amounts while zinc, magnesium, manganese and copper in lesser amounts in *Nigella sativa* seeds.

Fat soluble vitamins such as DL- α -tocopherol, DL- γ -tocopherol, and all trans-retinol in *Nigella sativa* seeds. Water soluble vitamins like B1, B6, niacin and folic acid are also present in black seed¹⁷.

3.1 Temperament (Mizaj)

Hot 2° & Dry 2°^{8,10} Hot 3° & Dry 3°^{7,9,19-21} Hot 3° & Dry 2°⁸ Hot 1° & Dry 1°²².

3.2 Therapeutic dosage (Miqdar-e-Khurak)

1-2 g^{10,11}, 1-2 masha⁹, 1-3 masha⁸, 2 g²²

4. PHARMACOLOGICAL ACTIONS

Munzij-e-Balgham^{18,19}

Jali^{18,19}

Musakkin¹¹

Mudirr-e-Haiz (Emmenagogues), Mudirr-e-Baul (Diuretic)¹⁻⁵

Muqavvi-e-Medah (Stomachic)¹¹

Qatil-e-Deedan-e-Ama (Anthelmintic)^{1,8,19,23}

Mohallil-e-Waram (Anti-inflammatory)^{12,18,19}

Daf-e-Kharish (Anti-pruritic)^{8,13}

Malayyin-e-Shikam (Laxative)¹⁸

Carminative^{1-4,18,23}

Appetizer^{1,8,23}

Aromatic³

Anaesthetic, Antibiotic and Diaphoretic^{3,23}

Mujaffir⁸

Muharrir (stimulant)^{1-4,18}

Mufriz-e-sheer (Galactagogue)^{1,18,23}

Musqit-e-janeen (Abortifacient)^{1,18}

Antibacterial Activity^{12,13,14,23}

Antispasmodic Activity²³

Antidiabetic Activity^{13,14,24}

Anticarcinogenic and mutagenic Activity^{14,24}

Antioxidant Activity^{13,14}

Analgesic Activity^{13,14}

Antifungal Activity^{12,23}

Hepatoprotective Activity^{13,14,24}

Immunomodulatory Activity^{13,14,24}

Nephroprotective & Neuroprotective Activity²⁴

Antihyperlipidemic Activity²³⁻²⁹

5. THERAPEUTIC USES

It is mostly used in Istisqaa (ascites), Yerqaan (Jaundice), Zof-e-Meda (gastric upset), Nafakh-e-Shikam (flatulence), Qulanj (intestinal colic), Piles, Hydrophobia, Tertian fever, Waj-ul-mafasil (arthritis), Wajaul-qutn (backache), Falij (paralysis) and Eyesores^{1,11,18}. It is also used in suda'a (headache), Nazla (common cold), Suaal (cough), Asthma and used to expel kidney stone^{3,12,18,23} it is also used in skin eruption (Bahaq, Bars)^{11,19}. Alcoholic extracts of the seed show antibacterial activity against *Micrococcus pyogenes*, *Micrococcus aureus*, *E.coli*⁸.

The black seeds (*Nigella sativa*) are the remedy for every disease except death." Prophet Mohammad's (SAW) companion, Abu Hurairah (Radi Allaho Anho) narrates, "I have heard from Prophet that there is cure for every disease in black seeds except death and black seeds are shooneez (Kalonji)"²⁴.

5.1 Muzir Asraat (Adverse effects)

On kidney and other part of urinary tract⁸ and on hot temperament⁹.

5.2 Musleh (Corrective)

Roghan-e-Zaitoon & Kunjad^{8,9}.

5.3 Badal (Substitute)

Tukhm-e-Turb or Anisoon oil^{8,9}.

5.4 Murakkabat (Formulations)

Majoon-e-kalkalanaj, Majoon-e-Fanjnosh, Majoon-e-Kundur^{8,11} Habb-e- Hilteet, Jawarish Shoneez²².

6. CONCLUSION

Kalonji (*Nigella sativa*) being a prophetic medicine is very beneficial for human being due to its pharmacological actions of the seeds in

almost all the disease. Kalonji (*Nigella sativa*) is widely acceptable due to its antibacterial activity, antispasmodic activity, antidiabetic activity, anticarcinogenic and mutagenic activity, antioxidant activity, analgesic activity, antifungal activity, hepatoprotective activity, immunomodulatory activity, nephroprotective & neuroprotective activity, antihyperlipidemic activity. This drug is used in traditional medicine since long time and reference goes to Hippocrates and Dioscorides. But it is proved that it can be used in a number of disease because research are going on. So, this paper may be helpful to know the pharmacological actions and uses of kalonji (*Nigella sativa*) which is mentioned in Unani system of medicine.

REFERENCES

1. Kirtikar KR, Basu BD. *Indian medicinal plant* Vol.1. 2nd Edition. Lalit Mohan Basu Allahabad India, (1987). p. 11-12.
2. Anonymous, *The Wealth of India*. raw material. Vol.7. Publication & Information Directorate CSIR New Delhi, (1997). p. 63-65,91-92.
3. Nadkarni K. M. *Indian materia medica* Published by Bombay Popular Prakashan, Vol.2. P. 297.
4. Ibn-e-Baitar, *Aljamiul mufradat al advia wal aghziya* (urdu). Vol.3. CCRUM, New Delhi, (2003). P. 156-158.
5. Khare, CP. *Indian medicinal plants-an illustrated dictionary* Springer Publication, (2007). p. 439
6. Ghazanvi, K.M., *Tibb-e-nabvi aur jadid science* Al Faisal Nasheeran Wa Tajeerane- Kutab, Urdu Bazar Lahore, Pakistan, (1991).1: 228-236.
7. Ghani Najmul. Khazainul Advia. Idara Kitab-ul- Shifa Darya Ganj New Delhi; p. 1061-1062.
8. Hakeem, Abdul Mohd Hkm. *Bustanul Mufredat*. Idara Kitab-ul- Shifa, Darya Ganj New Delhi, p.450-451.
9. Kabeeruddin Hkm. Mohd. *Makhzanul mufradat almaroof* *khuasul Advia* Faisal Publication Deoband, UP. (2000). p. 460-461.
10. Anonymous, *The Unani Pharmacopoeia of India* Part 1. Vol.1. CCRUM Dept. of AYUSH Ministry of Health and Family Welfare Govt. of India. (2007). P. 42-43.
11. Anonymous, *Standardisation of single drugs of Unani medicine* Part II. CCRUM Dept. of AYUSH Ministry of Health and Family Welfare Govt. of India. (1992). P. 196-200.
12. Khan M. Akram, Chemical composition and medicinal properties of *Nigella sativa* Linn. *Inflammopharmacology*, (1999). Vol.7, No.1, p.15-35
13. B. H. Ali and Gerald Blunden, Pharmacological and Toxicological Properties of *Nigella sativa* Phytotherapy Research *Phytother Res.* (2003). 17; 299-305
14. Mohammad Yaheya Mohammad Ismail. Therapeutic Role of Prophetic Medicine Habbat-al-Baraka (*Nigella sativa* L.) - A Review *World Applied Sciences Journal* (2009). 7 (9): 1203-1208.
15. Rafeequddin Mohammad,. *Kanzul Mufradat*, First Edition, published by university publication unit, Sarfaraz House, AMU, Aligarh, (1985). p. 469-470
16. Rastogi Ram P. et al. *Compendium of Indian medicinal plants*, vol. 5, 1990-1994, Central Drug Research Institute, Lucknow publications & informations, Directorate, New Delhi, (1998): 483-484, 577-585.
17. Masood Sadiq Butt, Muhammad Tauseef Sultan, *Nigella sativa*: Reduces the Risk of Various Maladies Critical Reviews in *Food Science and Nutrition*, (2010) 50:654-665.
18. Ali Safiuddin Syed, *Unani advia mufradah* Taraqqi Urdu Beouru, New Delhi, p. 230-231
19. Sina Ibne,. *Alqanoon-fit-Tibb* Translated by Ghulam Husain Kintoori. Vol. 2. Idara Kitab-us-Shifa Kucha Chelan Darya Ganj New Delhi. (2007). P. 293.
20. Razi Abu Bakar Mohammad Bin Zakariya. *Kitabul mansoori*. CCRUM New Delhi p. 147
21. Bugdadi Ibne-Hubal, *Kitabul Mukhtar-at-fil-Tibb* (Urdu). Vol. 1. CCRUM AYUSH Ministry of Health and Family Welfare. Govt. of India; (2007). P. 268.
22. RazaA.,Asif A.R. and G.Yasin, Uses of *Nigella sativa* (Ranunculaceae) A Traditional Medicine, *International*

- Journal of Agriculture & Biology* 1560-8530/99/01-3-184-187
23. Randhawa, Mohammad Akram, Editorial Black Seed, *Nigella sativa*, deserves more attention, *J Ayub Med Coll Abbottabad* (2008); 20 (2)
 24. Zahida Tasawar, Zeshan Siraj, Nisar Ahmad and Mushtaq H. Lashari, The Effects of *Nigella sativa* (Kalonji) on Lipid Profile in Patients with Stable Coronary Artery Disease in Multan, Pakistan. *Pakistan Journal of Nutrition* (2011) 10 (2): 162-167.
 25. Khadiga A. Abdel Ati1, A.E. Mustafa2, H.E. Mohamed, The effect of dietary *Nigella sativa* seeds on the blood cholesterol and lipoprotein levels of rabbits. *Journal of Animal & Plant Sciences* (2009) Vol. 3, Issue 3: 227 – 230.
 26. Bhati Inayatullah, Rehman Fazalulur, et al., Effect of Prophetic Medicine kalonji (*Nigella sativa*) on lipid profile of Human beings: An In Vivo Approach. *World Applied Sciences Journal* (2009) 6(8):1053-1057.
 27. Singh Sanjiv, Manvi F. V., Basavraj Nanjwade, Rajesh Kumar Nema, Antihyperlipidemic Screening of Polyherbal Formulation of *Annona squamosa* and *Nigella sativa*, *International Journal of Toxicological and Pharmacological Research* (2010); 2(1): 1-5
 28. Gargari Bahram Pourghassem, Attary Vahideh Ebrahimzadeh Maryam Rafraf and Abolfazl Gorbani, Effect of dietary supplementation with *Nigella sativa* Linn. on serum lipid profile, lipid peroxidation and antioxidant defense system in hyperlipidemic rabbits, *Journal of Medicinal Plants Research* (2009). Vol. 3(10), 815-821.
 29. Muhammad Anwar Buriro and Muhammad Tayyab, Effect of *Nigella sativa* on lipid profile in albino rats. *Gomal Journal of Medical Sciences* (Jan–June, 2007). Vol. 5 (1) : 28-31.