KALAUNJI (THE SEED OF BLESSINGS) - A DRUG REVIEW FROM UNANI CLASSICAL MEDICAL TEXT

Shabiya Sultana¹, Mohd. Zulkifle², Abdul Haseeb Ansari*³, Shahnawaz⁴, Khan Nazia Zubair², Lubna Fatima⁵, Rafique Khan³

1. Dept. of Tahaffizi wa Samaji Tib, Ghausia Unani Medical College, Fatehpur.
2. Dept. of Kulliyat, National Institute of Unani Medicine, Bangalore.
3. Dept. of Tahaffizi wa Samaji Tib, National Institute of Unani Medicine, Bangalore.
4. Dept. of Ilmul Saidla, National Institute of Unani Medicine, Bangalore.
5. Dept. of Ilmul qabalat wa Amraz-e-Niswan, Jamia Hamdard, Delhi.

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ABSTRACT

From ancient plant origin drugs are used for treatment of diseases, Kalaunji (Nigella sativa) is one of very important plant in this regard. About 2000 years back it is used traditionally as a natural remedy. Plant and its parts are important source of folk medicine for asthma, diarrhoea, dyslipidemia etc. According to WHO about 80% of people believe on herbal remedies for their health and cure. It has been used in Middle East as traditional drug for chronic cough, flatulence, as cholericetic, antispasmodic and uricosuric. In Arabian and Indian civilization it is used as food as well as medicine. In Unani system of medicine it is used to cure number of diseases including skin diseases. In this review only Unani concept about kalaunji is discussed, because so many articles are available on Nigella sativa, but from Unani literature the discussion is very limited.
INTRODUCTION
Kalaunji is used from decades for both culinary and medicinal purpose. It is famous spice of Indian food and Middle Eastern cuisine. It is used as a ‘pepper’ in recipes. Deoscaridus (70AD) has mentioned this herb in his book Kitabul Hashaish. This Unani drug is in medicinal use since thousands of year and many ancient civilizations believe that this is magic herb. It promotes the health and fights against diseases for centuries. It is considered as medicine for all diseases except death. It is remains one of the most famous medicinal herb in muslim world. The seed’s oil of this drug is used in the treatment of skin diseases. Ibn Sina mentioned in Al Qanûn fit Tib that black cumin seeds help in stimulating body energy and recovery from fatigue and dispiritedness. Due to many therapeutic uses Nigella sativa earned the Arabic approbation, the habbatal barkah (seed of blessing). In Unani system of medicine Nigella sativa is regarded as a valuable remedy for a number of diseases. In India its seeds are used traditionally as stimulant, astringent, diuretic, emmenagogue, antihelminthic, antidiabetic and anti-inflammatory activity. And used in treatment of jaundice, intermittent fever, dyspepsia, piles and skin diseases, asthma, cough, bronchitis, headache, rheumatism, influenza and eczema etc. Honey bees collect nector from its flower to prepare honey. Its seeds are scattered in ponds and around field to catch fishes and to save grains respectively. Hundreds of articles, papers and books are available on Nigella sativa. But the reviews according to Unani concept are very limited. So it is an effort to highlight Unani concepts of kalaunji.

HISTORICAL PERSPECTIVE
As a natural remedy Kalaunji seeds are used over 2000 years for various diseases. In Islam, it is regarded as one of the greatest forms of healing medicine. Prophet Mohammad (SAW) mentioned that kalaunji can heal every disease except death. It is included in the drugs of ‘Ṭīb-i-nabvî’ or medicine of Prophet (SAW). He reportedly recommended black cumin as a “cure all” to his associates in Arabia 1400 years ago. In Ayurveda it is named ‘Krishna jeerak’ which means ‘Zīra siyāh’ (Carum cavri). In English it is named ‘Black cumin’ which also means ‘Zīra siyāh’. But there is no any relationship of kalaunji with ‘Zīra siyāh’. In old Arabic literature it is named as ‘habbat-al-sawda’ and in Persian literature as ‘siyāh daṇa’. From there in Hindi it is named ‘kālā dāna’ which is not appropriate, because ‘kālā dāna’ is ‘Habbul nil’ which is a purgative drug. In ayurveda it is mentioned as third type of ‘Zīra’ other than ‘Zīra siyāh’ and Zīra safed, which is wrong. In classical Unani
literature it is present by the name of ‘Shuiniz’ and ‘Habbatul sawda’. Its real origin is Rome so classical Unani physicians were well aware about it,12,13 and from it Arab physicians also gained knowledge of kalaunji.12

PLANT DESCRIPTION
It is an erect, usually profusely branched growing herbaceous18,19,21 annual flowering plant,19 having flowers of whitish yellow or bluish yellow in colour.6,18,22 Najmul Ghani mentioned that it is a grass which looks like plant of Saunf (Badyan) (Faeniculum vulgaris),22 but slightly small, its leaves are also like saunf but they are broad.6,13,14 Najmul Ghani mentioned that its leaves are like safar but little bit thin, and its tip of leaves are like tip of leaves of khashkhāsh but slightly small.22 Its flowers are whitish yellow or bluish yellow.6,18,22 This plant grows in Mausam-i-Rabi’ (spring season).13 In winter season at top of the plant, khashkhāsh (Papaver somniferum) like legumes are present, which are long and contain triangular black seeds.6,22,23,24 According to Kabiruddin the length of this herb is about one to two balisht (1balisht=9inches)24 and its seeds resemble the Tukhm-i-pyāz (Onion seeds).13,25 But onion seeds are little bit large.6 Old onion seeds are used for adulteration with Kalaunji seeds.13 According to Najmul Ghani, quwat (power) of kalaunji seeds persists for seven years and it is better to use seeds that are new, heavy, thick and pungent in taste.13,22,26 Two types of oils are obtained from kalaunji seeds, one is black in colour, volatile and aromatic, and another is white and thick like Arand (castor) oil.22 According to Gilani, power of its oil is equal to Raddish oil.22 According to Rafiuddin its quwat persists for four years.13 The seeds are key part for isolation of active ingredient.9

HABITAT
It is native to Southern Europe, North Africa and South West Asia.1,21,27 In India the plant is widely found and cultivated in Himachal Pradesh, Jammu & Kashmir, Bihar, Assam, Punjab, West Bengal and North East India.1,8,28

ETHANOBOTANICAL DESCRIPTION
An erect herb is of 45 cm tall (30-60cm).5,8,18,29 Its leaves are 2-3 pinnatisect and 2.5-5 cm long5,8,29 cut in linear segments.1,29 The flowering occurs in March to May.5 Flowers are white, blue or yellow terminal peduncle, some times with in an involucres or bracts. Sepals 5, regular deciduous petaloid, imbricate. Petals 5 with small 2-fid limb and long claw, Stamen numerous. Carpels 3-10, styles usually long. Fruits spherical capsulated, seeds triangular, black 3-2mm long.1,18
Part used
Its seeds and dry fruits are used.

Botanical name
*Nigella sativa* Linn.1,5,28,29

Family
Ranunculaceae11,19,30,31,32,33

Scientific classification1
Kingdom: Plantae
Division: Magnoliophyta
Order: Ranunculales
Family: Ranunculaceae
Genus: *Nigella*
Species: *sativa*

Synonyms
Siyāḥ dāṇa5
Black cumin3,10,11,19,32
*Shūnīz*5,6,2
*Kalajira*18,29
*Magrela*25
*Ḥabbatus sawda*6,6,22,23,25

Vernacular names

**English name:** Small Fennel,1,28,29,34 Black cumin,1,18,21,27,34,35,36 Black seeds,1,21,35,36 Black caraway17,32

**Hindi name:** Kala jira,18,29,34 Magrela,12,23 Kalonji;23,34 in south asia it is called kalaunji.27

**Unani/Tibbi name:** Kalonji;8,28 Shūnīz;5 Siyāḥ dāṇa;5 Kamūn-i-aswad;5 Shouniz.5

**Ayurvedic name:** Kaalaajaaji,28 Kalikaa,8,28 Parthvikaa, Sthulajiraka,28 Sushavi;28 Upkunchikaa,8,28,38 Ajaji.8

**Arabic name:** Ḥabbatus sawda6,16,22,23,25 Ḥabbatul Barkāh,36 Kamūn aswad17

**Sanskrit name:** Krishna jiraka,29 Upakunchika,28,34 Kanchi,6 Kalori,25 Krishna jira,18 Aranya jeeraka,34 Magrela1

**Persian name:** Siyāḥ dānā,22 Shonīz,14,22,23,25 Siyāḥ dārū,29 Shūnūz23

**Kannada name:** Karijirigay34,38
Bangali name: Magrela\textsuperscript{13,17,25}
Tamil name: Karunjiragam\textsuperscript{18,38}
Siddha name: Karum Seeragm\textsuperscript{28}
Malyalam: Karincirakam\textsuperscript{38}
Telugu: Nallajilakarra\textsuperscript{17,38}

\textbf{Māhiyat (part used):}
Dry fruits\textsuperscript{5,29,34}
Seed\textsuperscript{6,24,34}

\textbf{Taste:}
Slightly bitter\textsuperscript{5,14}
\textit{Phịkā} (Tapid taste)\textsuperscript{6}
\textit{Tez} (Harsh)\textsuperscript{24}
Bitter\textsuperscript{25}
Harsh with greasiness\textsuperscript{14}

\textbf{Mīzāj (Temperament):}
\textit{Hārr yābis} (hot and dry) in third degree\textsuperscript{2,14,23,39,40,41}
\textit{Hārr yābis} (hot and dry) in second degree\textsuperscript{5,6,22,24,25}

\textbf{Afā‘l (actions):} Various activities have been attributed with various crudes and purified parts of black seeds.\textsuperscript{14}
\textit{Jālī} (detergent)\textsuperscript{6,22,24,25}
\textit{Jādhībe rutubāt} (absorbant)\textsuperscript{6,13,14}
\textit{Munaffith-i-balgham} (expectorant)\textsuperscript{25}
\textit{Qate’ balgham} (mucolytic)\textsuperscript{26,39}
\textit{Muhallil wa Kāsir-i-riyāḥ} (carminative)\textsuperscript{6,12,24,25,28,36,39}
\textit{Muqawwi-i-meda} (gastrotonic)\textsuperscript{22,25}
\textit{Melayyan-i-taba‘} (laxative)\textsuperscript{25}
\textit{Qatil-i-kiram-i-shikam} (vermicide, antihelminthic)\textsuperscript{24,25}
\textit{Mudirr-i-baul} (diuretic)\textsuperscript{4,7,13,14,28}
\textit{Mudirr-i-hayd} (emmenogogue)\textsuperscript{12,13,14,25,28,42}
\textit{Musakkin-i-auja‘} (analgesic)\textsuperscript{25}
\textit{Maqawwi-i-dāsāb} (nervous tonic)\textsuperscript{12}
\textit{Muhallil} (anti inflammatory)\textsuperscript{12}
Naṣāf al-sawda (ant melancholic)\textsuperscript{41}
Naṣāf laqwā (anti facial paralytic)\textsuperscript{41}
Naṣā ṣarā wa sakta (anti epileptic and anti coma)\textsuperscript{41}
Naṣīḥ-i-rutubāt (absorbent)\textsuperscript{41}
Mund-i-akhla (concotive for humours)\textsuperscript{14}
Mukhrīj-i-janīn wa mashīma (abortifcient)\textsuperscript{13,14,17}
Tīryāq (antidote) of cold poisons\textsuperscript{14}
Muqawwi-i ḥarārat gharīziyā\textsuperscript{43}
Daṣā-i-amrād bārida (anticold diseases)\textsuperscript{13,44}
Daṣā-i-tap (antipyretic)\textsuperscript{13}
Antidote for animal poisoning (bite)\textsuperscript{13}
Antiparalytic\textsuperscript{17}
Iste’mālāt (Medicinal uses):
1. Its powder reduces pimples on local application.\textsuperscript{22,23,40} According to Deoscaridus, locally with sirka it removes Buthūr-i-Labaniyya and jarb-i-muqarrarah.\textsuperscript{43} According to Dauūd Antaki, local application of Shonīz, Buʿra, Naushāder (ammonium chloride) powder with Sirkā (vinegar) is mujarrab (patent) in Buthūr-i-labaniyya (Acne vulgaris).\textsuperscript{45,46}
2. After mixing with sirkā and other drug it can be applied locally in number of skin diseases like:
3. Bars (Vitiligo)\textsuperscript{6,14,25,39,43}
4. Bahaq\textsuperscript{6,25,39,43}
5. Daḏ (ring worm)\textsuperscript{6,25}
6. khīlān (mole)\textsuperscript{39}
7. massa (wart)\textsuperscript{39}
8. Ganj (baldness)\textsuperscript{25}
9. Daṇūṣthā ‘lab\textsuperscript{6,25,26}
10. Pimples\textsuperscript{6,22,25}
11. It cures Bars and Bahaq due to its latīf jauhar which are completely concoted by ḥarārat (heat), it is a type of quwat-i-jila (power of detergence).\textsuperscript{24}
12. Jālīnūs said that where jilā, taqtī (fragmentation), yabiṣat (dryness) and ḥarārat (heat) are required, kalaunji is very beneficial.\textsuperscript{23}
13. After soaking in sirka, its powder used as saotan (insuflation) for dard-i-shaqīqa
(migarin),\textsuperscript{6,14,23,25} *dard-i-sar bārid* (headache caused by cold),\textsuperscript{14} *laqwa*.\textsuperscript{14} According to Ibn Sina in *suda-i-bārida* (headache caused by cold) it is applied on affected side.\textsuperscript{39}

14. It dissolves chronic phlegmatic inflammation\textsuperscript{19,40} and hard swellings.\textsuperscript{39}

15. After grinding with humen milk, it can be used as *qutu̇r* (nasal drop) in nose for *yarqȧn* (jaundice).\textsuperscript{6,14,22,25,44}

16. Gargle of its decoction with *sanū̇bar* wood and *sirka* is used for toothache.\textsuperscript{2,14,22,23,39,40} In *Tībb-i-nabvi* it is mentioned that gargle of *kalaunj̄i* decoction with *sirka* has same benefit.\textsuperscript{44}

17. Its paste in water is applied on umbilicus or abdomen for ascariasis.\textsuperscript{6,14,22,23,37,40} Internally it expells intestinal worms,\textsuperscript{22,24,56} kills *Habbul qara*.\textsuperscript{40} According to *Ibn Masūya* it kills *kaddudāna* (tape worm).\textsuperscript{23,37,42,44} With *sirka* it expells *didān-i-shikam*.\textsuperscript{14} According to *Yu̇suf Harwi* it kills intestinal worms, both locally and internally.\textsuperscript{43} Nafisī mentioned that this external effect is due to its *quwat-i-lati̇fa* (demulsent power), *mulattifa* and *talkhi* (bitterness).\textsuperscript{24} According to *tībb-i-nabvi* if used with *indara* in it become more effective for *kiram-i-shikam*.\textsuperscript{44}

18. As *shumu̇m* (inhalation) it is used for *zukām* (rhinorrhoea).\textsuperscript{5,22,26,40,42,44} This effect is due to its *quwat-i-mulattifa* (demulcent power).\textsuperscript{23} According to Ibn Sina it reduces *zukām* if smelled with *katān* (sasamum seeds) in a poultice.\textsuperscript{39}

19. Its *surma* (coryllium) is useful in initial stages of *Nuzu̇l al mȧd* (cataract).\textsuperscript{14}

20. Its *dimȧd* (paste) is useful in headache, *dard-i-mafāsîl* (joint pain), *Dād* (ring worm), *Bars̄*, itching and *waram*.\textsuperscript{14}

21. On regular per oral use it increases secretion of milk (lactiferous)\textsuperscript{26,44} and *hayd* (emenogogue) also.\textsuperscript{22,40,44} So it is used for *ehṭebās hayd* (amenorrhoea).\textsuperscript{2,6,12,25,26,37} For *ehṭebās hayd* decoction of *kalaunj̄i nīm kofta* (crushed) is used.\textsuperscript{12} Arabians used it as lactogogue.\textsuperscript{17}

22. Locally it is beneficial in; *su̇āl-i-bārid* (cold cough),\textsuperscript{14,22} *Dard-i-śadar* (thoracic pain),\textsuperscript{6,14,22} Nausea, *Istisqa* (ascitis),\textsuperscript{6,13,14,17,22} *Yarqān* (jaundice),\textsuperscript{13,14,17} *Qūlanj rīhī* (colic pain).\textsuperscript{6,14,22}

23. It is used singly or with *natru̇n* (sodium) in *USR-i-tanaffus*\textsuperscript{40,43} and along with bu̇ra Armani̇ in *tangi-i-tanaffus*.\textsuperscript{26,34,42,43}

24. Due to its *jauhar-i-latīf, hār maddā* takes *nuďj* (concoction) from it. It is prove by its bitter taste.\textsuperscript{34,42} So it produces *nuďj* in *maddā* and maintains its consistency in
equilibrium. Its regular use increases fairness.

26. *Kalaunji* in a quantity of 9 grams with water is given for bite of mad dogs. Najmul Ghanī mentioned that in bite of mad dog or retīlā, it can be used in 10 gram dose.

27. With *āb-i-mūrad* (juice of *Myrtus communis*) internally it is useful in *bawāsir* (hoemorrhoids). As *bukhūr* (vapour) it is used in *bawāsir*.

28. It stops *khūn-i-niffās* (lochia) and its pain. Usefull in peuperal fever.

29. Locally its paste dissolves *waram*.

30. With *sikanjabīn* used for *tap-i-balghāmi kuhna* (chronic phlegmatic fever) and *tap-i-rub* (chauthiya bukhar) (melancholic fever).

31. Usefull in nausea, vomiting.

32. Internally and locally it cures splenitis.

33. Insect repellent.

34. It reduces menstrual trouble.

35. Its seeds are diuretics, lactiferous and stimulate uterine contraction.

36. Used for *dof-i-medā* (gastric weakness), *nafakh shikam* (flatulence) and *dard-i-kamar* (backache). *Kalaunji* powder in a quantity of 2 gram taken with water for *nafakh-i-shikam*. Jālinūs mentioned that its *taḥlīl-i-nafakh* (antiflatulent) action is incomparable.

37. For nervous symptoms, 2 gram of *kalaunji* powder with honey should be taken in morning.

38. On internal use it acts as *Mukhrij-i-janīn wa mashīma* (abortifacient).

39. Its oil is used in knee joint pain and cold fevers.

40. Arabians used it as eye drop for eye infection after soaking it in rose oil.

41. Its poultice seeds can be applied on abscesses, headache, nasal ulcers, orchitis, rheumatism etc.

42. Seeds oil has been used to treat dermatologic conditions like eczema, boils etc.

43. It is mentioned in *tibb-i-nabvi* that for *saikari* (dandruff capitis) 39 grams *kalaunji* mixed with 30 gram *barg-i-mehndi* (leaves of henna) and 300 grams of *roghan-i-zaitūn* (olive oil) should be applied locally.

44. For Acne vulgaris *kalaunji*, *berg-i-mehndi*, *sānā makki* (*Cassia angustifolia*), ḫabburrashād, Ṗātar all in equal quantities (10gram) boiled in 900 gram of *sirka* for 5
minuts, after filtering apply on scalp and face in night. 47

45. For Pemphigus vulgaris it is given orally as kalaunji 20 grams, Qust shīrīn (Saussurea lappa) 75 gram, bergh-i-kāśnī (chichorium intybus leaves) 5 grams, after grinding used orally 5 grams before and after meal. 47

46. For Moluscum contagiosum; kalaunji, murmaki (Commiphora myrrh), sanā makki, lobān (Styrax benzoin) all are taken 10 grams after boiling with 390 grams of sirka apply locally. 47

47. It increases power of tar (wet) and bārid (cold) drugs because kalaunji has more power of nufūz and sarāyat (power of penetration). 44

48. Useful in miādī bukhār (typhoid fever). 44

49. Its oil is used in bālkhūra (alopecia areata). 44

50. Its local application reduces the appearance of massa and til (moles). 44

51. Its fine powder mixed with Bahroza (Pinus longifolia) oil locally reduces earache caused by cold. 44

52. It remoovs riyaḥ (gas) and sudda (obstruction). 44

53. Its fine powder in two dirham dose (1 dirham≈3.5 grams) 20 is used in hydrophobia. 44

54. If its oil dropped in nose it cures Fālij (paralysis) and rāsha (corea). kalaunji destroys mādda (matter) of these diseases. 44

55. Kalaunji oil with roghan-i-zaitūn and roghan-i-kundar (Boswalia serrata oil) is used as tilā (liniment) to improve quwat-i-bāh (sexual power). 14

56. If it is obtained from aūshī shīshī and massaged on waist then it increases nuuž (erection). It also removes pains caused by cold. 14

57. Locally with sirka it cures ulcerated wet pruritis. 39,44

58. Kalaunji is mufatteh to paranasal sinuses. 26,39 with honey and warm water it removes kidney and bladder stones. 39,43,44

59. In hiccough it is very beneficial. 39

60. As mashrūb (drink) it is used in fālij (paralysis) and laqwa (facial paralysis). Locally its oil is also cures fālij and laqwa. 26

61. It is used in scorpion bite and other poisons. 26,44

62. Locally with ghee it cleans bushra (epidermis), is muḥammir (rubefacient) for cheeks. 22

63. Due to its quwate jilā, it cuts massa (warts). 23,43

64. In baldness massage of burned kalaunji with mom (wax) or oil is useful. 22
Nafā ḵāṣ (Special effects):
Mukhrīj-i-jānīn\textsuperscript{14}
Mudire-i-baul wa ḵāyḍ\textsuperscript{6,14,25}
Nafē yargān\textsuperscript{6,14,25}
Nafē bawāsīr\textsuperscript{14}
Oil is muqawi-i-bah wa ʿāṣāb\textsuperscript{14}

Miqdār-i-khorāk (Dose):
For bārid temperament 7 grams\textsuperscript{14}
For ḥār temperament 2 grams\textsuperscript{14}
1-2 grams\textsuperscript{6,24,25}
1mithqāl\textsuperscript{2} (1 miscal=4.5 grams)\textsuperscript{20}
½ mithqāl\textsuperscript{26}
3-7 grams\textsuperscript{5,13}
Powder seeds- 1-3 grams\textsuperscript{28,29}
2 dirham\textsuperscript{44}
According to Najmul Ghani for cold temperament 4-9 māsha (1masha= 1gram) and for hot temperament 1-3 māsha should be used. More than 3 māsha is muḍīr (harmful) for hot temperament.\textsuperscript{22}
According to Deoscaridus it is lethal to use in large quantity.\textsuperscript{23}

Season of collection: flowering and fruiting occurs in winter.\textsuperscript{29}

Muḍīr (Harmful):
It may cause Khunāq (diphtheria)\textsuperscript{13,14,22,25,41}
It may cause Daurāne sar (gideness)\textsuperscript{14,25} Ghashī (syncope)\textsuperscript{22} Dard-i-sar (headache)\textsuperscript{22}
It is Muḍīr (harmful) for Gurda (kidney),\textsuperscript{14,22,41} Lungs\textsuperscript{22} and Jigar (liver)\textsuperscript{22,26}
Kalaunji oil is Muḍīr for ḥār temperament peoples.\textsuperscript{14}
According to Hakīm Nāṣir Ḩāʾmad Tārīq, it is curative only; no any side effects are there.\textsuperscript{6}

Muṣleḥ (Purifier):
Katiṟa (Sterculia urenus)\textsuperscript{14,22,25}
Sard ashia (cold things)\textsuperscript{14,25}
Shahad (Honey)\textsuperscript{6}
Ilaičī khurd (Elettaria cardamomum)\textsuperscript{6}
Katiṟa and bansaloche (Bambusa arundinacea)\textsuperscript{22}
To be used after soaking in sirka\textsuperscript{14,22}
To be used with water of kāšni or khurfa.\textsuperscript{22}
*Tukhm-i-khāyār* (Cucumis sativus)\textsuperscript{22}
*Tukhm-i-khīrā*\textsuperscript{22}
*Bazarulbanj* (Hyoscyamus niger)\textsuperscript{26}
Śamagh arabi (gum of Acacia arabia)\textsuperscript{13}
Musleh of kalaunji oil is roghan-i-zaitūn (olive oil) and roghan-i-kunjad (sesamum oil)\textsuperscript{14}
**Badal (Substitute):**
*Anisūn* (Pimpinella anisam) in equal weight\textsuperscript{14,25}
Gum of zaitūn\textsuperscript{22}
*Tukhm-i-rashād* (seeds of *Lapidium sativum*)\textsuperscript{26}
According to Najmul Ghani *Tukhm-i- rashād*, three times of this *Anisūn* (Pimpinella anisum) and \(\frac{1}{2}\) of this *tukhm-i-soya* (*Anethum sowa* seeds) should be used.\textsuperscript{22}
*Aftimūn wilaiti* (Cuscuta reflexa)\textsuperscript{13}
Badal of kalaunji oil is oil of *tukhm-i-turab* (Raddish seeds) and roghan-i-anisūn.\textsuperscript{14}
**Mamnū’ (contraindications):** It is contraindicated in Ḥāmla aurat (pregnant women)\textsuperscript{22}
**Famous compound formulation:**
Ḥabb-i-hilāt\textsuperscript{12}
Jawārish shonīz\textsuperscript{12}
Majūn kalkalānj\textsuperscript{12}
Sufūj-i-shīfā\textsuperscript{6}
Ḥabb-i-kalaunji\textsuperscript{6}
According to Hākim Nāṣir Aḥmad Tāriq, kalaunji can be used in any compound formulation because it is musleḥ (purifier) to other contents of compound, it is used to cure all diseases.\textsuperscript{6}
**Chemical constituents:**
Seeds contain yellowish volatile oil 1.5% and fixed oil 37.5%. Volatile oil is the active constituent of *kalaunji*\textsuperscript{34} it consist of:
\begin{itemize}
  \item 1- Carvone 45-60% an unsaturated ketone
  \item 2- Terpene or limonene also called as carvene
  \item 3- Cymene\textsuperscript{34}
\end{itemize}
Many active principles have been isolated from *Nigella sativa* seeds like thymoquinone.\textsuperscript{10,15}
Thymoquinone shows antibacterial and antifungal activity.\textsuperscript{10,15,33}
A study revealed that thymoquinone has selective antimicrobial and cytoprotective properties. Thymoquinone is the most important compound of *Nigella sativa* which is responsible for antioxidant and free radical scavenging effect. Toxicity studies have shown that seed and oil have very low degree of toxicity.

**CONCLUSION**

So many studies have been done on *Nigella sativa*. But there is lack of studies based on Unani concepts. As its importance is explained in classical literature and modern science, no doubt it is a blessed drug, but it’s some therapeutic activity needs explanation like its paste on umbilicus for ascariasis. So further research should be done to explore these Unani indications.

**REFERENCES**


36. Ahmed ZA. Protective Effect of *Nigella sativa* Oil against CCl4-induced Hepatotoxicity in Rats. AJPS 2010;8(2):47.


