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

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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 cholerectic, 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.<sup>1,2,3,4</sup> It is used as a ‘pepper’ in recipes.<sup>1</sup> 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.<sup>5</sup> It promotes the health and fights against diseases for centuries.<sup>4</sup> It is considered as medicine for all diseases except death.<sup>6</sup> It remains one of the most famous medicinal herb in muslim world.<sup>7</sup> The seed’s oil of this drug is used in the treatment of skin diseases. Ibn Sina mentioned in Al Qanūn fit Tib that black cumin seeds help in stimulating body energy and recovery from fatigue and dispiritedness.<sup>8,9</sup> Due to many therapeutic uses *Nigella sativa* earned the Arabic approbation, the *habbatal barkah* (seed of blessing).<sup>9,10</sup> 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.<sup>11</sup> And used in treatment of jaundice, intermittent fever, dyspepsia, piles and skin diseases,<sup>8</sup> asthma, cough, bronchitis, headache, rheumatism, influenza and eczema etc.<sup>11</sup>

Honey bees collect nectar from its flower to prepare honey.<sup>12,13</sup> Its seeds are scattered in ponds and around field to catch fishes and to save grains respectively.<sup>12,14</sup> 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.<sup>15</sup> 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.<sup>1,3,8,10,18</sup> It is included in the drugs of ‘*Tibb-i-nabvi*’ or medicine of Prophet (SAW). He reportedly recommended black cumin as a “cure all” to his associates in Arabia 1400 years ago.<sup>1,7,17</sup> 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*’.<sup>12</sup> In old Arabic literature it is named as ‘*habbat-al-sawda*’ and in Persian literature as ‘*siyāh dāna*’. From there in Hindi it is named ‘*kālā dāna*’ which is not appropriate, because ‘*kālā dāna*’ is ‘*Habbul nil*’ which is a purgative drug.<sup>6</sup> In ayurveda it is mentioned as third type of ‘*Zīra*’ other than ‘*Zīra siyāh*’ and *Zīra safed*, which is wrong.<sup>6</sup> In classical Unani

literature it is present by the name of ‘*Shūnīz*’ and ‘*Habbatul sawda*’. Its real origin is Rome so classical Unani physicians were well aware about it,<sup>12,13</sup> and from it Arab physicians also gained knowledge of *kalaunji*.<sup>12</sup>

### PLANT DESCRIPTION

It is an erect, usually profusely branched growing herbaceous<sup>18,19,21</sup> annual flowering plant,<sup>19</sup> having flowers of whitish yellow or bluish yellow in colour.<sup>6,18,22</sup> *Najmul Ghani* mentioned that it is a grass which looks like plant of *Saunf* (Badyan) (*Faeniculum vulgare*),<sup>22</sup> but slightly small, its leaves are also like *saunf* but they are broad.<sup>6,13,14</sup> *Najmul Ghani* mentioned that its leaves are like *ṣātar* but little bit thin, and its tip of leaves are like tip of leaves of *khashkhāsh* but slightly small.<sup>22</sup> Its flowers are whitish yellow or bluish yellow.<sup>6,18,22</sup> This plant grows in *Mausam-i-Rabi* (spring season).<sup>13</sup> In winter season at top of the plant, *khashkhāsh* (*Papaver somniferum*) like legumes are present, which are long and contain triangular black seeds.<sup>6,22,23,24</sup> According to *Kabīruddin* the length of this herb is about one to two *balisht* (1balisht=9inches)<sup>24</sup> and its seeds resemble the *Tukhm-i-pyāz* (Onion seeds).<sup>13,25</sup> But onion seeds are little bit large.<sup>6</sup> Old onion seeds are used for adulteration with *Kalaunji* seeds.<sup>13</sup> 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.<sup>13,22,26</sup>

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.<sup>22</sup>

According to *Gīlānī*, power of its oil is equal to Raddish oil.<sup>22</sup>

According to *Rafīquddin* its *quwat* persists for four years.<sup>13</sup>

The seeds are key part for isolation of active ingredient.<sup>9</sup>

### HABITAT

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

### ETHANOBOTANICAL DESCRIPTION

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

**Part used**

Its seeds and dry fruits are used.

**Botanical name**

*Nigella sativa* Linn.<sup>1,5,28,29</sup>

**Family**

Ranunculaceae<sup>11,19,30,31,32,33</sup>

**Scientific classification<sup>1</sup>**

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

**Synonyms**

*Siyāh dāna*<sup>5</sup>

Black cumin<sup>3,10,11,19,32</sup>

*Shūnīz*<sup>5,6,2</sup>

*Kalajira*<sup>18,29</sup>

*Magrela*<sup>25</sup>

*Ḥabbatus sawda*<sup>5,6,22,23,25</sup>

**Vernacular names**

**English name:** Small Fennel,<sup>1,28,29,34</sup> Black cumin,<sup>1,18,21,27,34,35,36</sup> Black seeds,<sup>1,21,35,36</sup> Black caraway<sup>17,32</sup>

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

**Unani/Tibbi name:** Kalonji,<sup>8,28</sup> Shūnīz,<sup>5</sup> Siyah dāna,<sup>5</sup> Kamūn-i-aswad,<sup>5</sup> Shouniz.<sup>5</sup>

**Ayurvedic name:** Kaalaajaaji,<sup>28</sup> Kalikaa<sup>8,28</sup> Parthvikaa, Sthulajiraka,<sup>28</sup> Sushavi,<sup>28</sup> Upkunchikaa,<sup>8,28,38</sup> Ajaji<sup>8</sup>

**Arabic name:** Ḥabbatus sawda<sup>6,16,22,23,25</sup> Ḥabbatul Barkāh,<sup>36</sup> Kamūn aswad<sup>17</sup>

**Sanskrit name:** Krishna jiraka,<sup>29</sup> Upakunchika,<sup>28,34</sup> Kanchi,<sup>6</sup> Kalori,<sup>25</sup> Krishna jira,<sup>18</sup> Aranya jeeraka,<sup>34</sup> Magrela<sup>1</sup>

**Persian name:** Siyāh dāna,<sup>22</sup> Shonīz,<sup>14,22,23,25</sup> Siyāh dāru,<sup>29</sup> Shūnūz<sup>23</sup>

**Kannada name:** Karijirigay<sup>34,38</sup>

**Bangali name:** Magrela<sup>13,17,25</sup>

**Tamil name:** Karunjiragam<sup>18,38</sup>

**Siddha name:** Karum Seeragm<sup>28</sup>

**Malyalam:** Karincirakam<sup>38</sup>

**Telugu:** Nallajilakarra<sup>17,38</sup>

***Māhiyat* (part used):**

Dry fruits<sup>5,29,34</sup>

Seed<sup>6,24,34</sup>

**Taste:**

Slightly bitter<sup>5,14</sup>

*Phīka* (Tapid taste)<sup>6</sup>

*Tez* (Harsh)<sup>24</sup>

Bitter<sup>25</sup>

Harsh with greasiness<sup>14</sup>

***Mizāj* (Temperament):**

*Hār yābis* (hot and dry) in third degree<sup>2,14,23,39,40,41</sup>

*Hār yābis* (hot and dry) in second degree<sup>5,6,22,24,25</sup>

**Afā'ī (actions):** Various activities have been attributed with various crudes and purified parts of black seeds.<sup>14</sup>

*Jālī* (detergent)<sup>6,22,24,25</sup>

*Jādhībe rutubāt* (absorbant)<sup>6,13,14</sup>

*Munaffīth-i-balgham* (expectorant)<sup>25</sup>

*Qate' balgham* (mucolytic)<sup>26,39</sup>

*Muḥallīl wa Kāsīr-i-riyāḥ* (carminative)<sup>6,12,24,25,28,36,39</sup>

*Muqawwi-i-meda* (gastrotonic)<sup>22,25</sup>

*Mulayyan-i-taba'* (laxative)<sup>25</sup>

*Qatil-i-kiram-i-shikam* (vermicide, antihelminthic)<sup>24,25</sup>

*Mudīrr-i-baul* (diuretic)<sup>4,7,13,14,28</sup>

*Mudīrr-i-ḥayḍ* (emmenagogue)<sup>12,13,14,25,28,42</sup>

*Musakkin-i-aujā'* (analgesic)<sup>25</sup>

*Maqawwi-i-aṣāb* (nervous tonic)<sup>12</sup>

*Muḥallīl* (anti inflammatory)<sup>12</sup>

*Nāfāʿe sawdaʿ* (ant melancholic)<sup>41</sup>  
*Nāfāʿ laqwaʿ* (anti facial paralytic)<sup>41</sup>  
*Nāfāʿ ṣaraʿ wa saktā* (anti epileptic and anti coma)<sup>41</sup>  
*Nāshif-i-rutuḃāt* (absorbent)<sup>41</sup>  
*Mundij-i-akhlāt* (concotive for humours)<sup>14</sup>  
*Mukhrīj-i-janīn wa mashīma* (abortifaciant)<sup>13,14,17</sup>  
*Tiryāq* (antidote) of cold poisons<sup>14</sup>  
*Muqawwi-i ḥarārat gharīziya*<sup>43</sup>  
*Dāfāʿe-i-amrād bārīda* (anticold diseases)<sup>13,44</sup>  
*Dāfāʿe-i-tap* (antipyretic)<sup>13</sup>  
 Antidote for animal poisoning (bite)<sup>13</sup>  
 Antiparalytic<sup>17</sup>

**Isteʿmālāt (Medicinal uses):**

1. Its powder reduces pimples on local application.<sup>22,23,40</sup> According to Deoscaridus, locally with *sirka* it removes *Buthūr-i-Labaniyya* and *jarb-i-muqarraḥ*.<sup>43</sup> According to *Dauḍ Antaki*, local application of *Shonīz*, *Būra*, *Naushāder* (ammonium chloride) powder with *Sirkā* (vinegar) is *mujarrab* (patent) in *Buthūr-i-labaniyya* (Acne vulgaris).<sup>45,46</sup>
2. After mixing with *sirkā* and other drug it can be applied locally in number of skin diseases like:
3. *Barṣ* (Vitiligo)<sup>6,14,25,39,43</sup>
4. *Bahaq*<sup>6,25,39,43</sup>
5. *Dād* (ring worm)<sup>6,25</sup>
6. *khīlān* (mole)<sup>39</sup>
7. *massa* (wart)<sup>39</sup>
8. *Ganj* (baldness)<sup>25</sup>
9. *Dāusthaʿlab*<sup>6,25,26</sup>
10. Pimples<sup>6,22,25</sup>
11. It cures *Barṣ* and *Bahaq* due to its *latīf jauhar* which are completely concoted by ḥarārat (heat), it is a type of *quwat-i-jilā* (power of detergence).<sup>24</sup>
12. *Jalīnūs* said that where *jilā*, *taqtī* (fragmentation), *yabūsat* (dryness) and *ḥarārat* (heat) are required, *kalaunji* is very beneficial.<sup>23</sup>
13. After soaking in *sirka*, its powder used as *saotan* (insuflation) for *dard-i-shaqīqa*

- (migarin),<sup>6,14,23,25</sup> *dard-i-sar bārid* (headache caused by cold),<sup>14</sup> *laqwa*.<sup>14</sup> According to Ibn Sina in *ṣuda-i-bārida* (headache caused by cold) it is applied on affected side.<sup>39</sup>
14. It dissolves chronic phlegmatic inflammation<sup>39,40</sup> and hard swellings.<sup>39</sup>
  15. After grinding with humen milk, it can be used as *qutūr* (nasal drop) in nose for *yarqān* (jaundice).<sup>6,14,22,25,44</sup>
  16. Gargle of its decoction with *ṣanūbar* wood and *sirka* is used for toothache.<sup>2,14,22,23,39,40</sup> In *Tibb-i-nabvi* it is mentioned that gargle of *kalaunji* decoction with *sirka* has same benefit.<sup>44</sup>
  17. Its paste in water is applied on umbilicus or abdomen for ascariasis.<sup>22,23,37,40</sup> Internally it expells intestinal worms,<sup>22,24,56</sup> kills *Ḥabbul qarā'*.<sup>40</sup> According to *Ibn Masūyā* it kills *kaddūdāna* (tape worm).<sup>23,37,42,44</sup> With *sirka* it expells *didān-i-shikam*.<sup>14</sup> According to Yūsuf Harwī it kills intestinal worms, both locally and internally.<sup>43</sup> Nafisī mentioned that this external effect is due to its *quwat-i-latīfa* (demulcent power), *mulattifa* and *talkhi* (bitterness).<sup>24</sup> According to *tibb-i-nabvi* if used with *indaraān* it become more effective for *kiram-i-shikam*.<sup>44</sup>
  18. As *shumuūm* (inhalation) it is used for *zukaām* (rhinorrhoea).<sup>5,22,26,40,42,44</sup> This effect is due to its *quwat-i-mulattifa* (demulcent power).<sup>23</sup> According to Ibn Sina it reduces *zukaām* if smelled with *kataān* (sasamum seeds) in a poultice.<sup>39</sup>
  19. Its *surma* (coryllium) is useful in initial stages of *Nuzūl al mā'* (cataract).<sup>14</sup>
  20. Its *ḍimād* (paste) is useful in headache, *dard-i-mafāṣil* (joint pain), *Dād* (ring worm), *Barṣ*, itching and *waram*.<sup>14</sup>
  21. On regular per oral use it increases secretion of milk (lactiferous)<sup>26,44</sup> and *ḥayḍ* (emenagogue) also.<sup>22,40,44</sup> So it is used for *eḥtebās ḥayḍ* (amenorrhoea).<sup>2,6,12,25,26,37</sup> For *eḥtebās ḥayḍ* decoction of *kalaunji nīm koṣṭa* (crushed) is used.<sup>12</sup> Arabians used it as lactagogue.<sup>17</sup>
  22. Locally it is beneficial in; *suāl-i-bārid* (cold cough),<sup>14,22</sup> *Dard-i-ṣadar* (thoracic pain),<sup>6,14,22</sup> Nausea, *Istisqa* (ascitis),<sup>6,13,14,17,22</sup> *Yarqān* (jaundice),<sup>13,14,17</sup> *Qūlanj riḥī* (colic pain).<sup>6,14,22</sup>
  23. It is used singly or with *natrūn* (sodium) in *usr-i-tanaffus*<sup>40,43</sup> and along with *būra Armanī* in *tangi-i-tanaffus*.<sup>26,34,42,43</sup>
  24. Due to its *jauhar-i-latīf*, *hār mādda* takes *nuḍj* (concoction) from it. It is prove by its bitter taste.<sup>34,42</sup> So it produces *nuḍj* in *mādda* and maintains its consistency in

- equilibrium.<sup>22</sup>
25. Its regular use increases fairness.<sup>14</sup>
  26. *Kalaunji* in a quantity of 9 grams with water is given for bite of mad dogs.<sup>14</sup> Najmul Ghanī mentioned that in bite of mad dog or retīlā, it can be used in 10 gram dose.<sup>22</sup>
  27. With *āb-i-mūrād* (juice of *Myrtus communis*) internally it is useful in *bawāsīr* (hoemorrhoids).<sup>14</sup> As *bukhūr* (vapour) it is used in *bawāsīr*.<sup>17,26</sup>
  28. It stops *khuñ-i-niffās* (lochia) and its pain.<sup>22</sup> Usefull in peuperal fever.<sup>18</sup>
  29. Locally its paste dissolves *waram*.<sup>22</sup>
  30. With *sikanjabīn* used for *tap-i-balghami kuhna* (chronic phlegmatic fever) and *tap-i-rub'* (*chauthiya bukhar*) (melancholic fever).<sup>14,22,34,39,40,44</sup>
  31. Usefull in nausea, vomiting.<sup>22</sup>
  32. Internally and locally it cures splenitis.<sup>22,26</sup>
  33. Insect repellent.<sup>22,43</sup>
  34. It reduces menstrual trouble.<sup>18,22,37</sup>
  35. Its seeds are diuretics, lactiferous and stimulate uterine contraction.<sup>18,37</sup>
  36. Used for *ḍof-i-meda* (gastric weakness), *nafakh shikam* (flatulence) and *dard-i-kamar* (backache).<sup>6</sup> *Kalaunji* powder in a quantity of 2 gram taken with water for *nafakh-i-shikam*.<sup>12,42</sup> Jālīnūs mentioned that its *tahlil-i-nafakh* (antiflatulent) action is incomparable.<sup>43</sup>
  37. For nervous symptoms, 2 gram of *kalaunji* powder with honey should be taken in morning.<sup>12</sup>
  38. On internal use it acts as *Mukhrīj-i-janīn wa mashīma* (abortifacient).<sup>26</sup>
  39. Its oil is used in knee joint pain and cold fevers.<sup>26</sup>
  40. Arabians used it as eye drop for eye infection after soaking it in rose oil.<sup>17</sup>
  41. Its poultice seeds can be applied on abscesses, headache, nasal ulcers, orchitis, rheumatism etc.<sup>17</sup>
  42. Seeds oil has been used to treat dermatologic conditions like eczema, boils etc.<sup>9</sup>
  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.<sup>47</sup>
  44. For *Acne vulgaris* *kalaunji*, *berg-i-mehndi*, *sana makki* (*Cassia angustifolia*), *ḥabburrashād*, *sātar* all in equal quantities (10gram) boiled in 900 gram of *sirka* for 5



- minuts, after filtering apply on scalp and face in night.<sup>47</sup>
45. For Pemphigus vulgaris it is given orally as *kalaunji* 20 grams, *Qust shīrīn* (Saussurea lappa) 75 gram, *bergh-i-kāsnī* (chichorium intybus leaves) 5 grams, after grinding used orally 5 grams before and after meal.<sup>47</sup>
  46. For Moluscum contagiosum; *kalaunji*, *murmakki* (Commiphora myrrh), *sana makki*, *lobān* (Styrax benzoin) all are taken 10 grams after boiling with 390 grams of *sirka* apply locally.<sup>47</sup>
  47. It increases power of *tar* (wet) and *bārid* (cold) drugs because *kalaunji* has more power of *nufūz* and *sarāyat* (power of penetration).<sup>44</sup>
  48. Useful in *mīādi bukhār* (typhoid fever).<sup>44</sup>
  49. Its oil is used in *baḷkhūra* (alopecia areata).<sup>44</sup>
  50. Its local application reduces the appearance of *massa* and *til* (moles).<sup>44</sup>
  51. Its fine powder mixed with *Bahroza* (Pinus longifolia) oil locally reduces earache caused by cold.<sup>44</sup>
  52. It remoovs *riyāh* (gas) and *sudda* (obstruction).<sup>44</sup>
  53. Its fine powder in two *dirham* dose (1 *dirham*≈3.5grams)<sup>20</sup> is used in hydrophobia.<sup>44</sup>
  54. If its oil dropped in nose it cures *Fālij* (paralysis) and *raṣha* (corea). *kalaunji* destroys *mādda* (matter) of these diseases.<sup>44</sup>
  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).<sup>14</sup>
  56. If it is obtained from *āīshī shīshī* and massaged on waist then it increases *nuūz* (erection). It also removes pains caused by cold.<sup>14</sup>
  57. Locally with *sirka* it cures ulcerated wet pruritis.<sup>39,44</sup>
  58. *Kalaunji* is *mufatteḥ* to paranasal sinuses.<sup>26,39</sup> with honey and warm water it removes kidney and bladder stones.<sup>39,43,44</sup>
  59. In hiccough it is very beneficial.<sup>39</sup>
  60. As *mashrūb* (drink) it is used in *fālij* (paralysis) and *laqwa* (facial paralysis). Locally its oil is also cures *fālij* and *laqwa*.<sup>26</sup>
  61. It is used in scorpion bite and other poisons.<sup>26,44</sup>
  62. Locally with ghee it cleans *bushrā* (epidermis), is *muḥammir* (rubefacient) for cheeks.<sup>22</sup>
  63. Due to its *quwate jilā*, it cuts *massa* (warts).<sup>23,43</sup>
  64. In baldness massage of burned *kalaunji* with *mom* (wax) or oil is useful.<sup>22</sup>

**Nafā khāṣ (Special effects):**

*Mukhrij-i-janīn*<sup>14</sup>

*Mudire-i-baul wa hāyḍ*<sup>6,14,25</sup>

*Nafé' yarqān*<sup>6,14,25</sup>

*Nafé' bawasīr*<sup>14</sup>

Oil is *muqawi-i-bah wa aṣāb*.<sup>14</sup>

**Miqdār-i-khorāk (Dose):**

For *bārid* temperament 7 grams<sup>14</sup>

For *hār* temperament 2 grams<sup>14</sup>

1-2 grams<sup>6,24,25</sup>

1 mithqāl<sup>2</sup> (1 miscal≈4.5grams)<sup>20</sup>

½ mithqāl<sup>26</sup>

3-7grams<sup>5,13</sup>

Powder seeds- 1-3 grams<sup>28,29</sup>

2 dirham<sup>44</sup>

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 *muḍir* (harmful) for hot temperament.<sup>22</sup>

According to Deoscaridus it is lethal to use in large quantity.<sup>23</sup>

**Season of collection:** flowering and fruiting occurs in winter.<sup>29</sup>

**Muḍir (Harmful):**

It may cause *Khunāq* (diphtheria)<sup>13,14,22,25,41</sup>

It may cause *Daurāne sar* (gidiness)<sup>14,25</sup> *Ghashī* (syncope)<sup>22</sup> *Dard-i-sar* (headache)<sup>22</sup>

It is *Muḍir* (harmful) for *Gurda* (kidney),<sup>14,22,41</sup> Lungs<sup>22</sup> and *Jigar* (liver)<sup>22,26</sup>

*Kalaunji* oil is *Muḍir* for *hār* temperament peoples.<sup>14</sup>

According to Hakīm Nāsir Aḥmad Tāriq, it is curative only; no any side effects are there.<sup>6</sup>

**Muṣleḥ (Purifier):**

*Katīra* (*Sterculia urenus*)<sup>14,22,25</sup>

*Sard ashia* (cold things)<sup>14,25</sup>

Shahad (Honey)<sup>6</sup>

*Ilaichī khurd* (*Elettaria cardamomum*)<sup>6</sup>

*Katīra* and *bansalochan* (*Bambusa arundinacea*)<sup>22</sup>

To be used after soaking in *sirka*<sup>14,22</sup>

To be used with water of *kāsnī* or *khurfa*.<sup>22</sup>

*Tukhm-i-khayār* (*Cucumis sativus*)<sup>22</sup>

*Tukhm-i-khīra*<sup>22</sup>

*Bazarulbanj* (*Hyoscyamus niger*)<sup>26</sup>

*Samagh arabi* (gum of *Acacia arabia*)<sup>13</sup>

Musleh of *kalaunji* oil is *roghan-i-zaitūn* (olive oil) and *roghan-i-kunjad* (sesamum oil)<sup>14</sup>

#### **Badal (Substitute):**

*Anisūn* (*Pimpinella anisam*) in equal weight<sup>14,25</sup>

Gum of *zaitūn*<sup>22</sup>

*Tukhm-i-rashād* (seeds of *Lepidium sativum*)<sup>26</sup>

According to Najmul Ghani *Tukhm-i-rashād*, three times of this *Anisūn* (*Pimpinella anisum*) and ½ of this *tukhm-i-soya* (*Anethum sowa* seeds) should be used.<sup>22</sup>

*Aftimūn wilaiti* (*Cuscuta reflexa*)<sup>13</sup>

*Badal* of *kalaunji* oil is oil of *tukhm-i-turab* (Raddish seeds) and *roghan-i-anisūn*.<sup>14</sup>

**Mamnu' (contraindications):** It is contraindicated in *Hāmla aurat* (pregnant women)<sup>22</sup>

#### **Famous compound formulation:**

*Habb-i-hiltī*<sup>12</sup>

*Jawārish shonīz*<sup>12</sup>

*Majūn kalkalānj*<sup>12</sup>

*Sufūf-i-shifā*<sup>6</sup>

*Habb-i-kalaunji*<sup>6</sup>

According to Hakīm Nāsir Aḥmad Tāriq, *kalaunji* can be used in any compound formulation because it is *muṣleḥ* (purifier) to other contents of compound, it is used to cure all diseases.<sup>6</sup>

#### **Chemical constituents:**

Seeds contain yellowish volatile oil 1.5% and fixed oil 37.5%. Volatile oil is the active constituent of *kalaunji*<sup>34</sup> it consist of:

- 1- Carvone 45-60% an unsaturated ketone
- 2- Terpene or limonene also called as carvene
- 3- Cymene<sup>34</sup>

Many active principles have been isolated from *Nigella sativa* seeds like thymoquinone.<sup>10,15</sup>

Thymoquinone shows antibacterial and antifungal activity.<sup>10,15,33</sup>

A study revealed that thymoquinone has selective antimicrobial<sup>15</sup> and cytoprotective properties.<sup>48</sup> Thymoquinone is most important compound of *Nigella sativa* which is responsible for antioxidant and free radical scavenging effect.<sup>30</sup>

Toxicity studies have shown that seed and oil have very low degree of toxicity.<sup>48</sup>

## 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.

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