Filfil Siyah (Piper nigrum Linn) an important Drug of Unani System of Medicine: A Review

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ABSTRACT

Herbs and Spices are very common ingredients of most of the compound drugs of Unani (Greco-Arab) System of Medicine due to their diverse pharmacological potentials and very few side effects on human health. Black pepper (Piper nigrum Linn.) called as FilfilSiyah in Unani System of Medicine is an important drug being used for a variety of ailments. Although it is considered as ‘The King of Spices’ throughout the world but it is the most famous spice used in Indian and Indian sub-continent kitchens and as home remedy for various common diseases. Therapeutic uses are mentioned in different Folk, Traditional and Alternative systems of medicine like Unani, Ayurveda and Sidha medicine. This review article is aimed to provide scientific description of Piper nigrum, its chemical constituents, Temperament, properties and uses for promotion and prevention of health.

Keywords: Piper nigrum Linn, Microscopical, Drug of Unani System, Medicine

1. Introduction

Filfil Siyah consists of mature dried fruits of piper nigrum Linn. It belongs to the family Piperaceae (Khare, 2007). It is an important herbal plant is used in traditional system of medicine in Asia and Pacific Island especially in Indian medicine. The plant is native of Indo-Malaya region. It was first introduced to Europe and was highly regarded as a flavour ingredient by the romans (Sharma vinay et al., 2012). It is cultivated in Assam as well as Kerala Konkan. The fruits of piper nigrum ripen from December to March, depending upon climatic condition and harvested from December to April. (Khare, 2007)

Vernacular Names: (Anonymous, The Unani Pharmacopoea of India, 2007)

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<tr>
<th>Language</th>
<th>English</th>
<th>Urdu</th>
<th>Arabic</th>
<th>Hindi</th>
<th>Persian</th>
<th>Gujarati</th>
<th>Bengali</th>
<th>Tamil</th>
<th>Marathi</th>
<th>Punjabi</th>
<th>Telugu</th>
<th>Kannad</th>
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<tbody>
<tr>
<td></td>
<td>Black Pepper</td>
<td>FilfilSiyah, Kalimirch</td>
<td>FilfilAswad</td>
<td>Kalamirch</td>
<td>FilfilSiyah</td>
<td>Kalimor</td>
<td>Golmorich, Kalaorich, Morich</td>
<td>Milagu</td>
<td>Kalamiri</td>
<td>Galmirich, Kalimirch</td>
<td>Miriyalu, Marichamu</td>
<td>Menaru, Karimonaru</td>
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Taxonomical Classification

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<th>Plantae</th>
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<tbody>
<tr>
<td>Class</td>
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<tr>
<td>Sub class</td>
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<tr>
<td>Super order</td>
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<tr>
<td>Order</td>
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<td>Piperaceae</td>
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<td>Genus</td>
<td>Pipe</td>
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Species: nigrum  
Binomial name: Piper longum

Habitat:
It is found in Southern India and cultivated in Tamil Nadu and Kerala. It is also found in France, Sri Lanka, Thailand and South America. (Anonymous, Standardisation of Single drugs of Unani Medicine, YNM)

Ethnobotanical Description:
Macroscopic: It is thick, glabrous, flowering woody plant that is easily grows in the shade on supporting trees, trellises or poles up to height of 12-13 feet. (A.K. 1954) Leaves are coriaceous, 5-12.5 cm broad, ovate and acuminate. Fruits are glabrous, 4-6 mm in diameter which is grayish-black in colour, hard, wrinkled and called a drupe. Fruits are green initially and turn black on drying called as peppercorn. The fruit contains a single seed. The unripe green fruits may freeze-dry to turn in green pepper (Zohair A Damanhouri, 2014) Fruits. The odor is pungent. (Chopra, 1956)

Microscopic: Transverse section of piper nigrum shows the epicarp having polygonal cells, consisting of acuticle and also containing a dark content which is brown to black in colour. It has a zone composed of thin walled parenchymatous cells. (Kirtiker, 1996). Mesocarp constitutes a large area of pericarp. The outer layers are parenchymatous containing chlorophyll and starch grains. Various layers of cells appearing more or less compressed. Under the compressed cell region, there is a layer of large oil cells consisting of impregnated walls and a zone of small parenchymal cells. Endocarp is made up of single layer of stone cells. Testa consisting of 2-layers of compressed elongated cells. Endosperm is very small having a thin parenchymatous cell wall. It has a minute Embryo which is embedded in endosperm. (Anonymous, Standardisation of Single drugs of Unani Medicine part I, YNM).

Phytochemistry:
Piperine: It is the first pharmacological active compound that was isolated from various members of the family Piperaceae. It has four isomers eg. Piperine, Isoamisiperine, Isochavicineand Chavicine. (Nisar Ahmad, 2012) Phenols, flavonoids, alkaloids, steroids, amides, lignans, terpenesneolignans etc are alsopresent. (Khare, 2007) N-Formylpiperidine, N-trans-Feruloyltryamine, pentadienyl as piperidine, (2E,4E)- N-isobuty-ldecadienamid, isobutyl-eicosadienamide, Isobutyl-occtadienamide, isobutyl-eicosatrienamide. Piperamide, Papermid, Piperamine,Pipericide,Piperettine, Piperine, Piperolein B.Sarmentosine, Retractamidine, Sarmentine, Tricholein, Guineessine, Trichostachine are the other compounds that are also present in piper nigrum. (Nisar Ahmad, 2012). It is used for enhancing the efficacy of co-administered medicaments. (Khare, 2007)

Mizaj (Temperament):

Afa’al(Actions):
Externally: Jali, Musakkin, Jazib-e-Khoon.

Istemalat (Uses):

Pharmacological Activities:
- Antinflammatory Activity
- Hepatoprotective Activity
- Anti oxidant Activity
- Anti mutagenic activity
- Anti tumor Activity
- Anti diarrheal Activity
- Anti Hypertensive Activity

(Khare, 2007) (Nisar Ahmad, 2012) (Chopra, 1956)

Miqdar-e- khurak (Dosage):1-2 g. (Anonymous 2007)

Compound Formulations:

Conclusion:
It is a well-known fact that most of the spices being used as home remedies and described in literature of Unani medicine play a vital role against variety of ailments.This review depicted that Filfilsiyah (Piper nigrum) has numerous therapeutic effects on human health.

References: