



## A brief review of Halelajat (*Terminalia chebula*) in Unani medicine

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### ABSTRACT

*Halela* (*Terminalia chebula* Retz., family: Combretaceae) is one of the drugs worthwhile to be used in Unani medicine due to its extraordinary therapeutic efficacy. Globally, the species is distributed in the Indo-Malaysian region and Sri Lanka. Within India, it is distributed in the Sub-Himalayan tracts to West Bengal and Assam. *Halela* is one of the drugs of choice to be used in *Saudawi*/chronic diseases (diseases with the dominance of black bile) in Unani medicine. *Halela* proposed to promote digestion, absorption, elimination, rejuvenation, and elimination of black bile from the body (*khilt sauda*, a humour responsible to produce aging and a culprit for chronic diseases). Various scientific studies have also evidenced its beneficial effects. In this article, a review of three different varieties of *halela*, which have been used in Unani medicine for centuries, has been specified with special reference of Unani as well as other pieces of literature.

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### Introduction

Unani medicine is one of the oldest traditional systems of medicine with enormous popularity around the globe. The history of Unani medicine begins with the Greek notion of good health based on the theory of humors and temperament proposed by the “Father of Unani medicine” Hippocrates (*Buqrat* 460–370 BC). In countries of the South Asian region, the Unani system of medicine has been quite popular along with the other traditional systems of medicine. The teaching, practice, and research on Unani medicine are governed by the Ministry of AYUSH, an independent ministry to promote and propagate the Indian traditional system of medicine in India [1].

Unani medicine mostly utilizes drugs of herbal origin (90%) in the prevention and treatment of various diseases. *Halela* (*Terminalia chebula*) is one of the drugs widely used in Unani medicine individually or as a part of compound Unani formulation. *Halelajat* is one of the common terminologies used in the pharmacy books of Unani medicine. *Halelajat*

is a collective term used in Unani medicine to denote all the three varieties of *halela* (*halela siyah*, *halela zard*, and *halela kabuli*) and used mostly altogether in compound preparations of Unani medicine. Thus, all the three varieties differ from each other, due to variability in their chemical constituents and main actions, in their therapeutic usage. However, all the three varieties possess similarity in many pharmacological actions. A term “Triphalajat” is also commonly used in Unani pharmacy literature to denote the drug *halela* (*Terminalia chebula*), *balela* (*Terminalia bellirica*), and *amla* (*Emblica officinalis*) altogether which forms the base of famous compound formulation “Itrifal” in Unani medicine [2–4].

### Halela Siyah

#### Morphology

*Halela Siyah* is a medium-to-large deciduous tree, and its scientific name is *T. chebula* which belongs to the genus *Terminalia* and family Combretaceae [5].

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It is an evergreen tree widely distributed throughout India [6]. It is 15–24 m in height and 1.5–2.4 m in girth with spreading branches [7]. Fruit of *T. chebula* is considered as the king of medicine by Tibetans [6]. Fruits are used as medicine in household remedies in various diseases since antiquity [8]. The fruit has a bitter taste and found in six varieties; those are nothing more the same fruit in different stages of maturity, but *Hakim Allama Gilani* has described its three types only, i.e., *Halela Siyah*, *Halela Zard* (very nearly to mature), and *Halela Kabuli* (fully matured) [2] (Fig. 1).



**Figure 1.** Halela Siyah

#### Vernacular names

[2–4,9,10].

Arabic	: Halilaj, Ahlij Aswad
Bengali	: Haritaki
English	: Black Chebulic Myrobalan
Hindi	: Har
Kashmiri	: Halela
Punjabi	: Halela
Sanskrit	: Haritaki
Telugu	: Haritaki

#### Part used

Fruits and pericarp [2,10].

#### Temperament (mizaj)

*Barid Yabis* (Cold dry) [2].

#### Chemical constituents

Tannic acid constitutes 32% which includes chebulagic acid, chebulinic acid, ellagic acid, syringic acid, and gallic acid. Other constituents are glycosides, flavonoids, and so on [7,10].

#### Pharmacological actions

*Musaffiye dam* (blood purifier), *jazibe ratubat* (desiccant), *Muqavvi Meda wa Ama* (stomachic),

*Mufarreh Qalb* (exhilarant to the heart), *Muqavvi Dimagh* (brain tonic), and *qabiz* (astringent) [2–4,11].

#### Therapeutic uses

Obesity, constipation, dyslipidemia, diabetes, atherosclerosis, liver disorder, headache, and hypertension [2,4,11,12].

#### Dose

9–12 g [2,4].

#### Compound formulations

*Itrifal-e-Sagheer*, *Itrifal-e-Ustukhuddus*, *Itrifal-e-Mulayyin*, *Itrifal-e-Sana*, *Itrifal-e-Zabeeb*, *Itrifal-e-Zamani*, *Itrifal-e-Muqil Mumsik*, *Itrifal-e-Muqil*, *Majoon Bhangra*, *Majoon Musaffi Khoon*, *Majoon Ushba*, *Safoof Chutki*, *Habbe Kabid Naushadri*, *Habb-e-Mus'hil*, and *Majoon Najah* [13,14].

#### Scientific/experimental studies

Hypolipidemic activity [15,16], anti-obesity effect [17], antidiabetic activity [18,19], antioxidant activity [20], immunomodulator activity [21], anticancer activity [22,23], hepatoprotective activity [24], and cardioprotective activity [8].

#### Halela Zard

Drug *halela* consists of the pericarp of mature fruits of *T. chebula* Retz. of Combretaceae family [8]. Drug yielding plant is a moderate-sized or large tree found throughout India chiefly in the deciduous forests and areas of light rainfall but occasionally also in slightly moist forests up to about 27-m elevation throughout India [7]. Flowers appear from April to August and fruits ripen from October to January [25] (Fig. 2).



**Figure 2.** Halela zard

**Vernacular names**

[2–4, 26,27].

Arabic	: Halelaj
Persian	: Halela Kabuli
Assamese	: Helikha, Silikha, Hokikha
Bengali	: Haritaki, Hora
English	: Chebulic Myrobalan, Black Myrobalan
Gujarati	: Hirdo, Himaja, Pilo-Harde, Kabuli-harda, Hardo
Hindi	: Harra, Harad, Harar, Pile Har, BalHar
Kannada	: Alalikai, Kale Har, Zangli Har, Har, Harara
Kashmir	: Halela
Malayalam	: Katukka, Kayastha, Kadukhai, Divya
Marathi	: Harda, Hirda, Harba
Oriya	: Haridra, Hirdar, Hirada, Horida
Punjabi	: Halela, Haser, Harrar, Har Hush, Harar
Sanskrit	: Abhaya, Kayastha, Siva, Pathya, Haritaki
Tamil	: Kadukkai, Amagola, Arabi, Aridadi
Telugu	: Karaka, Karakkaya, Haritaki, Karaka, Sringitiga, Karakai
Urdu	: Halela, Halela Kabuli, Halela Zard

**Morphology**

(a) *Macroscopic*: Whole fruit is yellowish-brown, ovoid, 20–35 mm long, 13–25 mm wide, wrinkled and ribbed longitudinally, pericarp fibrous, 3–4 mm thick, non-adherent to seed, taste, and astringent [14].

(b) *Microscopic*: Transverse section of pericarp shows epicarp consisting of one layer of epidermal cells on inner tangential and upper portions of radial wall thick, mesocarp 2–3 layers of collenchyma, followed by the broad zone of parenchyma, in which fibers and sclereids in group and vascular bundles scattered; fibers with peg-like outgrowth and simple pitted walls; sclereids of various shapes and sizes but mostly elongated tannins and raphides in parenchyma; endocarp consists of thick-walled sclereids of various shapes and sizes, mostly elongated epidermal surface view reveal, polygonal cells, and uniformly thick-walled; several of them divided into two by a thin septa; starch grains are simple rounded or oval in shape, measuring 2–7 m in diameter founding plenty in almost all cells of mesocarp [13].

**Identity, purity, and strength**

*Foreign matter*: not more than 1%, total ash: not more than 5%, acid-insoluble ash: not more than 5%, alcohol-soluble extractive: not less than 40%, and water-soluble extractive: not less than 60% [13].

**Chemical constituents**

Tannins, anthraquinones, and polyphenolic compounds [13].

**Temperament (mizaj)**

*Barid Yabis* (cold dry) [2]

**Pharmacological actions**

*Muqawwi-e-Basar* (eye/eyesight tonic), *Muqawwi-e-Dimagh* (brain tonic), *musakkin* (sedative), *Muqawwi-e-Shar* (hair tonic/blackens gray hair), and *Mushile Safra* (bilious purgative) *wa sauda* (purgative of black bile humor) [2,4,8,10,28,29].

**Therapeutic uses**

*Zofe-e-Basarat* (weakness of eyesight), *Zof-e-Dimagh* (weakness of memory), *Zof-e-Meda* (weakness of the stomach and digestion), *Zof-e-Ama* (weakness of the intestine and digestion), and *saudavi marz* (diseases with dominance of black bile/chronic diseases) [2,4,9].

**Dose**

3–5 g [2].

**Compound formulations**

*Itrifal-e-sagheer*, *Itrifal-e-Kishneezi*, *Itrifal-e-Zamani*, *Itrifal-e-Ustukhuddus*, *Itrifal-e-Shahtra*, *Itrifal-e-Mulaiyin*, *Itrifal-e-Kabir*, *Majoon-e-Kundur*, *Majoon-e-Khabs-ul-Hadeed*, and *Kohal-ul-Jawahir* [13].

**Scientific/experimental studies**

Antidyslipidemic activity [15,30], anti-obesity activity [17], antioxidant activity [31], antidiabetic activity [32], and neuroprotective activity [33].

**Post-Halela Kabuli**

*Halela kabuli* is the mature fruit of *T. chebula* [25]. Depending on the different stages of maturity of fruits, six varieties of *T. chebula* were described [34]. Since it is mainly imported from Kabul to the different parts of the world, it is known as *halela kabuli* [2] (Fig. 3).



**Figure 3.** Post-Halela Kabuli

#### **Vernacular names**

[2, 4, 11, 29].

Arabic	: Ahlilaj Kabuli
English	: Myrobalan
Hindi	: Har Kabuli
Persian	: Halela Kabuli
Urdu	: Halela Kabuli

#### **Parts used**

Fruits and pericarp [2].

#### **Temperament (mizaj)**

*Barid Yabis* (cold dry) [3,4].

#### **Chemical constituents**

Chebolic acid, gallic acid, tannin, flavonoids, alkaloids, and glycosides [35].

#### **Pharmacological actions**

*Musaffiye dam* (blood purifier), *jazib-e-ratubat* (desiccant), *Muqavvi Meda wa Ama* (stomachic), *Mufarreh Qalb* (exhilarant to the heart), *Muqavvi Dimagh* (brain tonic), and *qabiz* (astringent) [2-4,11].

#### **Therapeutic uses**

Obesity, constipation, dyslipidemia, diabetes, atherosclerosis, liver disorder, headache, hypertension insomnia, obesity, amraze jild (skin diseases), and *amraze jigar wa tihal* (diseases of the liver and spleen) [2-4,11,12].

#### **Dose**

3-5 g [2].

#### **Compound formulations**

*Itrifal-e-sagheer*, *Itrifal-e-Muqil Mumsik*, *Itrifal-e-Zabeeb*, *Itrifal-e-Zamani*, *Itrifal-e-Muqil*, *Habbe Kabid*

*Naushadri*, *Majoon Muqil*, *Majoon Najah*, *Majoon Zabeeb*, and *Majoon Musaffi Khoon* [13,14].

#### **Scientific/experimental studies**

Hypolipidemic activity [15,16], anti-obesity effect [17], antidiabetic activity [18,19], antioxidant activity [20], immunomodulator activity [21], anticancer activity [22,23], hepatoprotective activity [24], and cardioprotective activity [25].

#### **Conclusion**

*Halela* (*T. chebula* Retz.) belongs to the family of plants Combretaceae, distributed over the Sub-Himalayan tracts to West Bengal and Assam. *Halelajat* is a terminology of Unani pharmacy to represent three different varieties of halela (*halela siyah*, *halela zard*, and *halela kabuli*), which are used in the prevention and treatment of various diseases and ailments. *Halela siyah* is an unripe seedless fruit that falls and collected to be called *halela siyah/halela hindi*. The ripe fruit of *halela* with seeds is called *halela zard* when it becomes yellow. Once, the fruit of *halela* ripens completely and becomes large, it is called *halela kabuli*. Unani classics have vividly described the therapeutic effect of the different varieties of *halela*. In the Unani system of medicine, *halela* is a drug of choice to be used in diseases with dominance of black bile (a humor which dominates in chronic diseases), such as *sartan* (cancer), *Daus Sadaf* (psoriasis), *malenkholia* (melancholia), *talayyuf kabid* (cirrhosis of the liver), *istirkha* (paralysis), *juzam* (leprosy), *bawaseer* (piles), *izme tehal* (splenomegaly), aging, and *dayami kabz* (chronic constipation), and diseases with dominance of phlegm (a humor which dominates in phlegmatic diseases), such as *saman mufrit* (obesity), *kabz* (constipation), dyslipidemia, *ziyabatees* (diabetes), atherosclerosis (*Tasaddud Shahmi Kilsa*), *muzmin warme jigar* (chronic liver disorders), headache, *Zigtuddum Qawi* (hypertension), and metabolic syndrome. The drug has substantiated its different pharmacological activities such as antibacterial, antifungal, antispasmodic, anti-inflammatory, antioxidant, neuroprotective, immunomodulator, hepatoprotective, cardioprotective, anticarcinogenic, antiaging, and antiviral activities in various experimental studies.

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