



Received on 07 June 2015; received in revised form, 29 June 2015; accepted, 27 July 2015; published 31 July 2015

## HULBAH (*TRIGONELLA FOENUM-GRAECUM.*): A REVIEW

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### Keywords:

Methi, *Trigonella foenum-graecum*, Hulbah, Unani Medicine

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**ABSTRACT:** The Hulbah, *Trigonella foenum-graecum* of family Legumenasea which is commonly known as methi, in the traditional system of medicine including Unani Medicine. Hulba is an annual herb, 1-2 fit long contains the seed in long, narrow sickle shape pods called Tukhme Hulbah. Hulbah leaves are yellowish green, petiolate, usually 2-5 cm long called Burge Hulbah. The Hulbah contains alkaloids, e.g., trimethylamine, neurin, trigonelline, choline, gentianine, carpaine. amino acids, e.g., isoleucine, 4-Hydroxyisoleucine, histidine, leucine, lysine, valine tryptophan, argeniens, tyrosine, cystine, threonine, diosgenin, smilagenin, neotigogenin, gitogeninne, graecunins, fenugrin, fenugreekine, trigofoenosides. neogitogenin, yuccagenin, saponaretin, gum, neutral detergent, fiber, lipids, vitamins, minerals. 28% mucilage; 22% proteins; 5% bitter fixed oil. Therapeutic uses of Hulbah (*Trigonella foenum-graecum*), mentioned in the Unani Medicine are *zof-e-meda* (Indigestion), *nafakh-e-shikam* (Flatulence), *qulanj*, *waj-ul-mafasil* (Arthritis), *waj-ul-qutn* (Backache), paralysis It is also used in headache, nazla (common cold), sual (cough), asthma. It is also used in skin eruption (bahaq, bars), diabetes mellitus, hyperlipidemia etc. The present article reviews the pharmacological actions and therapeutic uses of Hulbah (*Trigonella foenum-graecum*) present in Unani literature supported with the available clinical and animal studies.

**INTRODUCTION:** Hulbah is an Arabic word and applied for the common name 'Methi'. Its scientific name is *Trigonella foenum-gracum*<sup>1, 2, 3, 4</sup> belongs to the family Legumenasea<sup>5</sup>. The two fairly separate types of plants are recognized; the dwarf type grown for cooking purpose and tall-growing type known as Methi in Punjab which are grown for fodder. The drug Barge Hulbah is the leaf of *Trigonella foenum graecum* and the name comes from "Foenum- grecum" meaning Greek Hay. The name of genus "Trigonella" is derived from the Greek name denoting "three angled" from the form of its corolla<sup>34</sup>.

The historical references to these plants are also found in some of the oldest religious and medical texts. In the Islamic literature, it is mentioned as a Prophetic Medicine and Prophet Muhammad Mohammad (SAW) mentioned its therapeutic efficacy and potential of cure. It is stated in books of Hadith that Prophet Muhammad (SAW), said, "Get cure from Methi (Hulbah)"<sup>6</sup> (Ibn-al-Qayyam).

Therefore Hulbah has occupied a special place for its medicinal value since centuries in the Middle East and Southeast Asia. It has been traditionally used in the treatment of some ailments such as respiratory diseases, stomach problems, an intestinal disorder, bladder and kidney diseases, liver disorder, spleen disorder, circulatory and immune system problem and for general overall well-being. In the present review, an attempt has been made to cover the major therapeutic uses of Hulbah mentioned in Unani system of medicine and supported with the recent studies on *Trigonella*

	<b>QUICK RESPONSE CODE</b> <b>DOI:</b> 10.13040/IJPSR.0975-8232.IJP.2(7).315-19
	Article can be accessed online on: <a href="http://www.ijpjournal.com">www.ijpjournal.com</a>
<b>DOI link:</b> <a href="http://dx.doi.org/10.13040/IJPSR.0975-8232.IJP.2(7).315-19">http://dx.doi.org/10.13040/IJPSR.0975-8232.IJP.2(7).315-19</a>	

*foenum-graecum* in human and animal models. Brief introduction of the 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 Jalinoos (Galen). Unani System of Medicine was introduced in India by Arabs in the 13<sup>th</sup> Century. Afterward, its holistic approach is utilized and adopted by thousands of people. Unani System of Medicine is applied for almost all diseases and provides a traditional approach for their prevention and cure.

### Vernacular Names:

Aasami:	Mithiguti
Arabic:	Hulba,
Bengali:	Meetu
Chinese:	Hu Lu Ba
Dutch:	Fenegrick
English:	Bird foot, Greek hayseed
French:	Fenugreek
German:	Griechischten
Hindi:	Methi, Kasorimethi
Italian:	Fieno Greco
Kannada:	Menta
Malayalam:	Vethian
Marathi:	Methi
Punjabi:	Methiri
Persian:	Shambelile
Sanskrit:	Methika
Spanish:	Alnolva
Swedish:	Bockhornsklover
Tamil:	Vandayam
Telugu:	Methikura
Urdu:	Methi <sup>5, 7, 8, 9, 10</sup>

### Scientific Classifications:

Kingdom:	Plantae
Sub-kingdom:	Tracheobionta
Super-kingdom:	Spermatophyta
Division:	Magnoliophyta
Class:	Magnoliopsida
Sub-class:	Rosidae
Order:	Fabales
Group:	Dicot
Duration:	Annual
Family:	Leguminosae/Fabaceae
Genus:	Trigonella
Species:	<i>T. foenum-graecum</i> <sup>11, 12</sup>

**Plant Description:** Hulbah is an important medicinal crop of India which is found in North India and mostly cultivated in Panjab, Himachal Pradesh, Bihar, and Kashmir. In India, it is raised as a cold season crop<sup>5, 9, 13, 14</sup>. The plant is an annual herb, 1-2 fit long contains the seed in long, narrow sickle shape pods, leaves, and flowers. The seed is removed by thrashing when the pods attain ripe stage. Hulbah leaves are yellowish green, petiolate, usually 2-5cm long but sometimes up to 10 cm, ovate, deeply divided into five or occasionally seven segments, each with a coarsely crenate margin and obtuse apex; both surfaces downy and the midrib prominent on the lower surface. Leaflets are 2.0 to 2.5 cm long, oblanceolate along obscurely dentate; flowers are white or yellowish white. Seeds are rhomboidal in shape and with a deep yellow color compressed, truncate at both ends, 3.0-7.0 mm in length, 2.8-4.0 mm in breadth and 2.2-2.5 mm in thickness. The testa is smooth and is bitter, pungent odor and agreeable, difficult to break<sup>15, 16, 17</sup>.

### Chemical Constituent:

**Alkaloids:** Trimethylamine, neurin, trigonelline, choline, gentianine, carpaine and betain.

**Amino Acids:** Isoleucine, 4Hydroxyisoleucine, histidine, leucine, lysine, valine L-tryptophan, argeniens, tyrosine, cystine, yamogenin, threonin, diosgenin, smilagenin, sarsasapogenin, tigogenin, neotigogenin, gitogeninne.

**Saponins:** Graecunins, fenugrin B, fenugreek in, trigofenosides A-G.

**Steroidal Sapinog:** Neogitogenin, yuccagenin, saponaretin.

**Flavonoids:** Quercetin, rutin, vetixin isovetixin.

**Fibers:** Gum, neutral detergent, fiber.

**Other:** Coumarin, lipids, vitamins, minerals 28% mucilage; 22 % proteins; 5 % of a stronger swelling, bitter fixed oil.<sup>11, 18, 19</sup>

**Temperament (Mizaj):** Hot & dry 2 °C<sup>20, 21, 22</sup>; hot 2 & dry 1 °C<sup>4</sup>; hot & dry 1 °C<sup>1</sup>; hot & dry 3 °C<sup>23</sup>; and hot & dry without degree<sup>25</sup>.

**Therapeutic Dosage (Miqdar-e-Khurak):** 3-5 masha<sup>26</sup>, 4-6 gm<sup>27</sup>

**Pharmacological Actions:**

- *Munzija* (Concoctive) <sup>1, 22, 23, 25, 26</sup>
- *Jali* (Detergent) <sup>21, 22, 23</sup>
- *Musakkine Alam* (Analgesic) <sup>1, 4, 25, 21, 22, 23, 24</sup>
- *Mudirr-e-Haiz* (Emmenagogues) <sup>2, 4, 25, 26, 22</sup>
- *Mudirr-e- Baul* (Diuretic) <sup>2, 4, 25, 26, 22</sup>
- *Muqavvi-e-Medah* (Stomachic) <sup>22, 23</sup>
- *Mohallil-e-Waram* (Anti-inflammatory) <sup>1, 2, 3, 4, 26, 22, 23</sup>
- *Mulayyin-e-Shikam* (Laxative) <sup>1, 2, 4, 25, 26, 22, 23</sup>
- *Kasire-Riyah* (Carminative) <sup>2, 25, 22, 23, 24</sup>
- *Mosakhhin* (Anaesthetic) <sup>21</sup>
- *Muharrrik* (stimulant) <sup>4, 24</sup>
- Antispasmodic activity <sup>24</sup>
- Antidiabetic activity <sup>24</sup>
- Analgesic activity <sup>1, 4, 25, 21, 22, 23, 24</sup>
- Nephroprotective <sup>20</sup>
- Neuroprotective activity <sup>21, 22, 23</sup>
- *Muqavvi-e- Shar* (Hair tonic) <sup>25, 11</sup>
- *Munaffis-e-Balgham* (Expectorant) <sup>2, 4, 25, 22, 23, 24</sup>
- *Mulattif* (Demulcent) <sup>4, 24</sup>
- *Muallid-e-Dam* <sup>4</sup>
- *Musaffi-e-Khoon* (Blood Purifier) <sup>26</sup>
- *Muqavvi-e-Badan* (General body tonic) <sup>4, 25</sup>
- *Muqavvi-e-Bah* (Aphrodisiac) <sup>4, 22</sup>
- Anti-bacterial activity <sup>31</sup>
- Anti-oxidant activity <sup>31</sup>
- Anti-fungal activity <sup>33</sup>
- Antihyperlipidemic activity <sup>30</sup>
- Anti-cancerous activity <sup>32</sup>

**Therapeutic Uses:** Hulbah is mostly used in diabetes, *Ihtebas-e-Baul wa Haiz* (Ammenorrhoea), *Istisqaa* (ascites), *Yerqaan* (Jaundice), *Zof-e-Meda* (Gastric upset), *Nafakh-e-Shikam* (Flatulence),

*Qulanj* (Intestinal colic), *Bawaseer* (Piles,) *Qillatud Dam* (Anemia) *Izm-e-Tehal wa Kabid* (Hepatomegaly and splenomegaly), *Warm-e-Rahem* (Endometritis), *Inteshar-e-Shar*, *Wajaul-qutn* (Backache), *Falij* (Paralysis) *Mirgy* (Epilepsy) *Taqteerul Baul* (Incontinence) <sup>1, 4, 24</sup>. It is also used in Nazla (common cold), Suaal (cough), asthma and also used in *Dard-e-Chashm* (Ophthalmia) <sup>21</sup>. It is also used in skin eruption & *Fasad-e-Khoon* (Bahaq, Bars) <sup>4, 26</sup>.

An infusion of the leaves is used as a gargle for recurrent mouth ulcers. A gargle made from the seeds is best for ordinary sore throat. Fresh Fenugreek leaves paste applied over the scalp regularly before bath helps hair grow, preserves natural color, keeps hair silky and also cures dandruff. Fenugreek seeds made in gruel if given to nursing mothers increase the flow of milk <sup>18</sup>. *Qasim bin Abdur Rahman* narrated that the Prophet Mohammad (SAW) said, "Mix fenugreek in your medicines and Get cure from Methi (Hulba)." (*Ibn-al-Qayyim*) It is also documented in the collection of Hadith that the Prophet Mohammad's (SAW) visited one of his blessed companions, *Sa'ad bin Abi Waqqass*, who had contracted an illness during his stay in Mecca, and then requested that a physician examine him. After a diagnosis was made, the Prophet (SAW) said, "He will be fine. Give him the soup of a decoction of dates and fenugreek (Hulbah)." <sup>6</sup>

**Muzir Asraat (Adverse Effects):** Hulbah is harmful to testis (*unsiaine*) <sup>24</sup>. Hulba is also harmful to people of hot temperament. It is harmful if taken empty stomach in large quantity and regular usage causes headache and nausea and it is also harmful to pregnant women <sup>28, 29</sup>.

**Musleh (Corrective):** Palak, khurfa, sikanjabeen <sup>25</sup>

**Badal (Substitute):** Bizre katan, <sup>26</sup> ikhlilul mulk <sup>24</sup>

**Murakkabat (Formulations) in Unani Medicine:** Tiryaqe Ziqun-al-Nafas, Raughn-e-Shifa, Marhum Dakhaliyoon, Dawa-ul-Misk.

**CONCLUSION:** Hulbah (*Trigonella foeman-gracum*) being a prophetic medicine has been studied and tested vigorously esp. for its pharmacological actions of the seeds & leaves and has been proven for its usage in various systemic

diseases. Hulbah (*Trigonella foeman-gracum*) is widely accepted due to its antibacterial activity, antidiabetic activity, anticarcinogenic, antioxidant activity, analgesic activity, antifungal activity, antifertility effect, immunomodulator, hepato-protective activity, nephroprotective & neuro-protective activity, and antihyperlipidemic activity.

This drug is used in traditional system of medicine since a long time, and reference goes to Hippocrates and Dioscorides. Now it has been proved through various clinical and animal studies that it can be used in some diseases. So, present paper particularly provides pharmacological actions and uses of Hulbah (*Trigonella foeman-gracum*) which are mentioned in the Unani system of medicine and proven through various studies.

**ACKNOWLEDGEMENT:** Nil

**CONFLICT OF INTEREST:** None declared.

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**How to cite this article:**

Khan QA, Khan AA, Ansari S and Jahangir U: Hulbah (*Trigonella foenum-graecum.*): A review. Int J Pharmacognosy 2015; 2(7): 315-19.  
doi link: [http://dx.doi.org/10.13040/IJPSR.0975-8232.IJP.2\(7\).315-19](http://dx.doi.org/10.13040/IJPSR.0975-8232.IJP.2(7).315-19).

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