



INTERNATIONAL JOURNAL OF PHARMACY & LIFE SCIENCES
(Int. J. of Pharm. Life Sci.)

Chemical Profile and folk-lore uses of *Terminalia chebula*

Vidyut Kumar Sharma

Gadariya Turn, Ratahara, Rewa, MP, India

Abstract

Plant and animal materials have been used successfully for the treatment of human diseases since ancient times. Every country in the world has enlisted various indigenous herbal remedies according to the diseases and human requirements. Ayurveda is an original holistic system of diagnosis and treatment involving nutrition, hygiene and rejuvenation, developed and perfected in India. *Terminalia chebula* (Harad) is an indigenous medicinal plant used traditionally in the treatment of several human diseases. Harad is one of the major components of Triphala. The present paper enumerates the chemical profile and folk lore uses of selected plant.

Key words: *Terminalia chebula*, Folk-lore, Chemical profile

Introduction

Medicinal plants are various plants used in herbalism and thought by some to have medicinal properties. Few plants or their phytochemical constituents have been proven to have medicinal effects by rigorous science or have been approved by regulatory agencies such as the United States Food and Drug Administration or European Food Safety Authority. India is a country known for ancient scripts, the number system, invention of zero and Vedas. Medicines in India are used by about 60 per cent of the world's population. These are not only used for primary health care not just in rural areas in developing countries, but also in developed countries as well where modern medicines are predominantly used. While the traditional medicines are derived from medicinal plants, minerals, and organic matter, the herbal drugs are prepared from medicinal plants only¹.

Terminalia chebula syn. *Terminalia zelanica* Van Heurck & Mull. Arg. belongs to family Combretaceae commonly known as Harad (Hindi) and Myrobalan (English) is a medicinally important plant grown in some parts of our country. The fruit of plant is used medicinally and is one of the important components of Trifala²⁻³.



Fig. 1: Fruits of *T. Chebula*

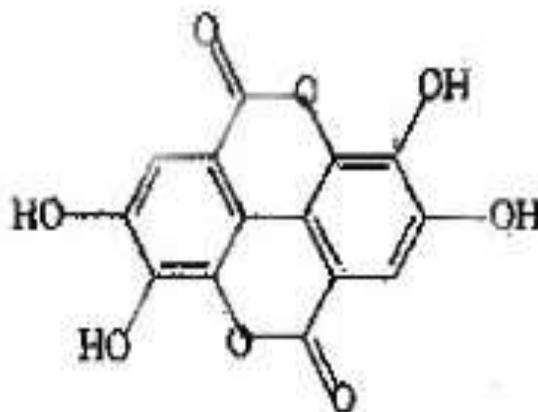
Chemical Profile

In *Terminalia chebula*, 33% of the total phytoconstituents are hydrolysable tannins (which may vary from 20-50%) and are responsible for pharmacological activity. These tannins contain phenolic carboxylic acid like gallic acid, ellagic acid, chebulic acid and gallotannins such as 1,6 di-O-galloyl- β -D-glucose, 3,4,6 tri-O-galloyl- β -D-glucose, 2,3,4,6 tetra-O-galloyl- β -D-glucose, 1,2,3,4,6 penta-Ogalloyl- β -D-glucose. Ellagitannin such as punacalagin, casuarinin, corilagin and

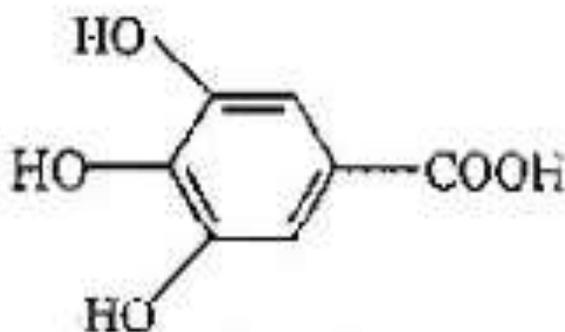
*** Corresponding Author**

terchebulin and others such as chebulanin, neochebulinic acid, chebulagic acid and chebulinic acid. The tannin content varies with the geological variation. Flavonol glycosides, triterpenoids, coumarin conjugated with gallic acid called chebulin, as well as other phenolic compounds including , 2,4-chebulyl- β -D-glucopyranose, ethyl

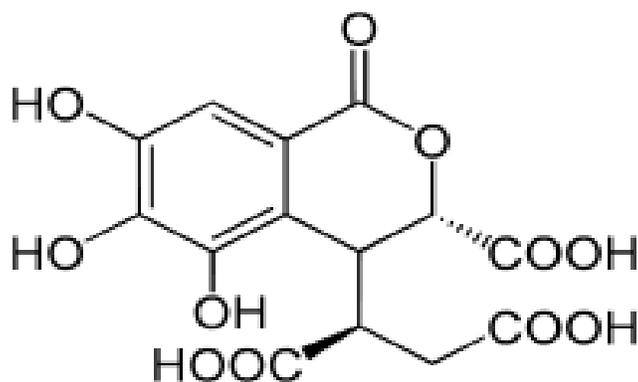
gallate, punicalagin, terflavin A, terchebin, luteolin, and tannic acid. Chebulic acid is a phenolic acid compound isolated from the ripe fruits. Luteic acid can also be isolated from the bark⁴⁻⁵.



Ellagic acid



Gallic acid



Chebulic acid

Folk-lore uses⁴⁻⁶

- *Terminalia chebula* has laxative, rejuvenative, purgative, astringent and dry properties.
- The paste of fruit of *Terminalia chebula* is effective in reducing swelling, hastening the healing process and cleansing the wounds and ulcers.
- Gargling with of *T. chebula* decoction helps in stomatitis, oral ulcers and sore throat.
- It serves as a good astringent for loose gums, bleeding and ulceration in gums.
- The herb is used in preparing 'Triphala' that is used for hair wash, brush teeth in pyorrhea and treat bleeding gums.
- It responds well to gastrointestinal ailments, tumors, ascites, piles, enlargement of liver-spleen, worms and colitis.
- Powdered *T. chebula* mixed with jaggery, works well in gout.
- Its powder, when mixed with honey and ghee, is an effective remedy for anemia.
- *T. chebula* is combined with sunthi powder and given with hot water to lighten asthma and hiccups.
- Its decoction, when taken along with honey, is of great help in hepatitis and obesity.
- The *T. chebula* improves memory and is salutary in dysuria and urinary stones.
- *T. chebula* helps in improving appetite and helps in digestion.
- It is a good nervine and helps in nervous weakness and nervous irritability and promotes the receiving power of the five senses.
- Since it is anti-inflammatory and astringent, it is helpful in urethral discharges like spermatorrhea and vaginal discharges like leucorrhoea.

Adverse and Side effects

- **Pregnancy:** There is some evidence that *Terminalia arjuna* is possibly unsafe during pregnancy. The safety of the other two

species during pregnancy is unknown. It's best to avoid using any terminalia species.

- **Breast-feeding:** There is not enough reliable information about the safety of *Terminalia* if you are breast-feeding. Stay on the safe side and avoid use.
- **Diabetes:** *Terminalia* might lower blood sugar levels. Your diabetes medications might need to be adjusted by your healthcare provider.
- **Surgery:** *Terminalia* might decrease blood sugar levels and interfere with blood sugar control during surgery. Stop taking *Terminalia* at least 2 weeks before a scheduled surgery.

References

1. Dwivedi Sumeet (2009). Status survey of medicinal plants wealth of Malwa region of Madhya Pradesh with special reference to conservation of vulnerable and endangered species, *J. Econ. Taxon. Bot.*, **33(2): 443-452**.
2. Kaul Shefali and Dwivedi Sumeet (2010). Indigeneous ayurvedic knowledge of some species in the treatment of human disease and disorders. *International Journal of Pharmacy and Life Sciences*, 1(1):44-49
3. Dwivedi Sumeet, Dwivedi S.N. and Dwivedi Abhishek (2015). Herbal Remedies for Respiratory Diseases among the Natives of Madhya Pradesh, India. *Am. J. Life. Sci. Res.*, **3(2): 158-162**.
4. Verma, G. S. (1955). *Miracles of Indian Herbs*. G.S. Ayurvedic Research Foundation, Delhi.
5. Chopra, R.N., Naiyar, S.L and Chopra, I.C. (1956). *Glossary of Indian Medicinal Plants*. ICMR, New Delhi.
6. Jain, S.K. and De Philipps, R.A. (1991). *Medicinal Plants of India* Reference Publication, Algonac, M.I.

How to cite this article

Sharma V.K. (2017). Chemical Profile and folk-lore uses of *Terminalia chebula*. *Int. J. Pharm. Life Sci.*, 8(4):5518-5520.

Source of Support: Nil; Conflict of Interest: None declared

Received: 10.03.17; Revised: 22.03.17; Accepted: 23.04.17