



ORIGINAL ARTICLE



Plumbago zeylanica L., a medicinal plant of India reported from Mandsaur district, Madhya Pradesh

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Abstract

Plumbago zeylanica L. is a herbaceous plant with glabrous stems that are climbing, prostrate, or erect. *Plumbago zeylanica* L. belongs to the species of *Plumbago* having family *plumbaginaceae*. *Plumbago zeylanica* L. contains plumbagin as major active/phytochemical constituents. This article reports the presence of *Plumbago zeylanica* L. at Gandhi Sagar wild life sanctuary, district mandsaar, Madhya Pradesh, India which is having some important medicinal agent used in the treatment of stubborn chronic rheumatoid arthritis, skin diseases and tumorous growths as recommended by Ayurveda. It also finds its use in correcting chronic menstrual disorders, viral warts, chronic diseases of nervous system, cancer & obesity.

Keywords: Ayurveda, Gandhi Sagar, Plumbagin, *Plumbago zeylanica*, Medicinal agent

1 | INTRODUCTION

Plants have been used for medicinal purposes long before prehistoric period. Traditional systems of medicine continue to be widely practiced on many accounts. Population rise, inadequate supply of drugs, prohibitive cost of treatments, side effects of several synthetic drugs and development of resistance to currently used drugs for infectious diseases have led to increased emphasis on the use of plant materials as a source of medicines for a wide variety of human ailments. Recently, WHO (World Health Organization) estimated that 80 percent of people worldwide rely on herbal medicines for some aspect of their primary health care needs. According to WHO, around 21,000 plant species have the potential for being used as medicinal plants [1].

Among the potential species having medicinal values *Plumbago zeylanica* L. plays a vital role.

Supplementary information The online version of this article (<https://doi.org/10.15520/ijmhs.v11i01.3212>) contains supplementary material, which is available to authorized users.

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2 | PLANT PROFILE

Plumbago zeylanica, commonly known as Ceylon leadwort, doctor bush or wild leadwort [2].


Sr no		
01	Image	
02	Kingdom	Plantae
03	Clade	Tracheophytes
04	Clade	Angiosperms
05	Clade	Eudicots
06	Order	Caryophyllales
07	Family	Plumbaginaceae
08	Genus	<i>Plumbago</i>
09	Species	<i>P. zeylanica</i>
10	Binomial name	<i>Plumbago zeylanica</i> L.
11	Synonyms	Hindi Name : Chitrak, Sanskrit Name : Chitraka, English Name : Leadwort, Latin Name : <i>Plumbago zeylanica</i> Linn Pennel

FIGURE 1:

Plumbago zeylanica is also known as Agni, Vahni, Jvalanakhya, Krsanu, Hutasa, Dahana, Hutabhuk, Sikhi, Agiyachit, Agnachit, Chita, Lead war, Chitrakmula, Chira, Chitra, Chitramula, Vahni, Bilichitramoola, Shatranja, Vellakeduveli, Thumpokkoduveli, Chitraka, Chitamula, Chitoparu, Chitramoolam, Kodiveli, Chitramulam, Sheetraj Hindi, Cheetah.

Appearance

Plumbago zeylanica is a herbaceous plant with glabrous stems that are climbing, prostrate, or erect. The leaves are petiolate or sessile and have ovate, lance-elliptic, or spatulate to oblanceolate blades that measure 5-9 × 2.5-4 cm in length. Bases are attenuate while apexes are acute, acuminate, or obtuse. Inflorescences are 3-15 cm in length and have glandular, viscid rachises. Bracts are lanceolate and 3-7 × 1-2 mm long. The heterostylous flowers have white corollas 17-33 mm in diameter and tubes 12.5-28 mm in length. Capsules are 7.5-8 mm long and contain are reddish brown to dark brown seeds [3,4].

3 | HABITAT AND RANGE

P. zeylanica grows throughout the tropical and sub tropical climate of the world.

MEDICINAL VALUES

Chitrak is used in treating intestinal troubles, dysentery, leucoderma, inflammation, piles, bronchitis, itching, diseases of the liver, and consumption. The leaves of this herb work well for treating laryngitis, rheumatism, diseases of the spleen, ring worm, scabies, and it acts as an aphrodisiac. A tincture of the root bark is used as an anti-periodic. Chitrak root helps improve digestion and it stimulates the appetite. Chitrak root is also an acro-narcotic poison that can cause an abortion [5].

STUDY AREA

We visited Gandhi Sagar Wild Life Sanctuary which is located in Mandsaur district of Madhya Pradesh, India. Mandsaur is a district of archeological and historical heritage, located in the central part of Malwa region of India lies between the parallel of latitude 23°45'50" North and 25°2'55" North and between the meridians of longitude 74°42'30" East and 70°50'20" East and spreaded over an area of 5521sq. km. The climate of this district is generally dry and it comes under semi arid region- zone 4. May is the hottest month in which temperature goes up to 45°C. January is the coldest month with minimum temperature up to 2°-3°C. The average annual rainfall 786.6mm. Typical vegetation of the area is tropical dry deciduous forests [6].

We visited the study area in rainy, winter and summer seasons for four years (2017-2020). We discussed and collected information from tribal people, local vaidyas and traders. Plant was identified with the help of flora and herbarium submitted to the department [7].



FIGURE 2: Map of Mandsaur district

4 | RESULT AND DISCUSSION

Plumbago zeylanica is an important medicinal plant used in Ayurveda and as folklore medicines also. During the survey we discussed with local vaidyas and tribal people about the uses of this plant and found that Villagers, Bhil and Bhilala tribes are still using this medicinal plant. Various researchers reported the medicinal use of *P. zeylanica*. Unfortunately such medicinally important plant was showing different degrees of extinction in Madhya Pradesh and other states also. We found this plant growing wildly in the forest area of Hinglaj garh and Takhaji of Mandsaur district.

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How to cite this article: Pant M. *Plumbago zeylanica* L., a medicinal plant of India reported from Mandsaur district, Madhya Pradesh. *Innovative Journal of Medical and Health Science*. 2021;1537–1539. <https://doi.org/10.15520/ijmhs.v11i01.3212>