

Studies on Some Indian Antidiabetic Plants: Pharmacognosy, Phytochemistry and Pharmacology

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(Review Article)

Systemic Review: Pharmacognosy, Phytochemistry, Pharmacology and Clinical Applications of *Pterocarpus marsupium* Rosb.

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ABSTRACT

Many traditional medicines in use are derived from medicinal plants, minerals and organic matter. India is the largest producer of medicinal herbs and is called as botanical garden of the world. *Pterocarpus marsupium* Rosb (Family-Fabaceae) is one of the oldest medicinal plant reported in the Indian system of medicine. In context of this, current review is the collection of all the literature i.e. pharmacognosy, phytochemistry and pharmacology of *Pterocarpus marsupium* Rosb.

Key Words: *Pterocarpus marsupium*, Leaves, Pharmacognosy, Phytochemistry, Pharmacology.

INTRODUCTION

In the last few years there has been an exponential growth in the field of herbal medicine and these drugs are gaining popularity both in developing and developed countries because of their natural origin and less side effects. The World Health Organization (WHO) has listed 21,000 plants, which are used for medicinal purposes around the world. Among these 2500 species are in India, out of which 150 species are used commercially on a fairly large scale. The use of Ayurvedic medicines is common in both adults and children and is increasing in many areas of the world.¹ *Pterocarpus marsupium* Rosb. belonging to the family fabaceae is popularly known as Indian Kino tree or Bijasa or Vijaysar in Hindi.² Bark is used as anti-diabetic,^{3,4} hepatoprotective⁵ and also as anti-diarrheal.⁶ Leaves are useful as external applications for boils, sores and skin diseases⁷ traditionally stem has been used for the treatment of neurological problems.⁸

The Genus *Pterocarpus* consist of 35 species. Various Species of *Pterocarpus* are⁹ *P. acapulcensis*, *P. altoparacensis*, *P. mildbraedii*, *P. amezonensis*, *P. angolensis*, *P. antunesii*, *P. brenanii*, *P. clausenensis*, *P. dalbergioides*, *P. erinaceus*, *P. echinatus*, *P. gillettii*, *P. hookii*, *P. humboldti*, *P. indicus*, *P. lucens*, *P. macrocarpus*, *P. marsupium*, *P. mutondo*, *P. officinalis*, *P. orbiculatus*, *P. osani*, *P. rohrri*, *P. rotundifolius*, *P. samalindensis*, *P. samalindensis*, *P. soyuzi*, *P. ternatus*, *P. tessmannii*, *P. tinctorius*, *P. velutinus*, *P. villosus*, *P. violaceus*, *P. zehneri*, *P. zenkeri*.

HABITAT

Bijasar is a large tree that commonly grows in the central, western, and southern parts of India and in Sri Lanka.¹¹ It is

distributed throughout India, Ceylon and most of the temperate countries.¹² It is found to grow in parts of states such as Andhra Pradesh, Bihar, Gujarat, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Rajasthan, Tamil nadu, Uttar Pradesh, West Bengal and Goa.¹³ Kino is locally called as "Bija" is native to India, Nepal and Sri Lanka where it occurs in parts of the Western Ghats.^{14,15}

TAXONOMICAL CLASSIFICATION

Taxonomically it is classified as¹⁶

Domain: Eukaryote

Kingdom: Plantae

Subkingdom: Viridiplantae

Phylum: Magnoliophyta

Subphylum: Euphyllophytina

Infraphylum: Radiales

Class: Magnoliopsida

Subclass: Rosidae

Super order: Fabanae

Order: Fabales

Family: Fabaceae

Genus: *Pterocarpus*

Species: *marsupium*

VERNACULAR NAMES

Vernacular names are as in English - Indian Malabar Kino, Indian Kino, Gummy Kino, Hindi - Bija, Bijasa, Sanskrit - Pitasala, Azam, Sarfaka, Telugu - Paitadagi Chekka, Marathi - Bihala, Tamil - Vegaimaram, chakkal, Assam - Aajar, Bengali - Piyasala, Pitasala, Gujrati - Bijo Asana

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blood sugar lowering property. Some of the important anti-diabetic potential herbal plants source and their active principles are given in Research J. Pharmacognosy and Phytochemistry. International journal of Pharmaceutical Erudition. The aim of this research was to investigate antidiabetic activity of *Costus igneus* (also Preliminary phytochemical investigations showed the presence of It has been estimated that Indian people are more genetically susceptible to diabetes pharmacological parameters of the plant leaves known as *Costus igneus*(L). Indian flora accounts for about 45, plant species out of which Plants possessing antidiabetic activities are of significant interest for phytochemistry dealing with an in-depth study of its phytochemicals, and their bioactivities. review: pharmacognosy, phytochemistry, pharmacology and clinical. Indian Medicinal Plants with Antidiabetic Potential .. A study on intestinal and renal disaccharidases activity in . View at Google Scholar; D. Singh, B. Singh, and R. K. Goel, Traditional uses, phytochemistry and pharmacology of *Ficus* . of *Eugenia jambolana*: a review, Pharmacognosy Magazine, vol. Pharmacognosy Research High Impact List of Articles PPTs Journals Journal of Pharmacognosy and Phytochemistry, Journal of Pharmacy & Pharmacognosy Conservation of superior phenotypes of teak (*Tectona grandis*) in central India . Response of root trainer plants of rubber to different potting media.

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