

PHARMCOLOGICAL ACTIONS OF VELVET BEAN (*MUCUNA PRURIENS* HOOK.): A
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ABSTRACT

Mucuna pruriens is also called Velvet Bean, Cowitch and Cowage in English and kaunch beej in Hindi. Its seeds are commonly used to manage Parkinson's disease and treat erectile dysfunction, oligospermia and impotence in men. It contains levodopa that increases circulating dopamine levels, which makes it an effective alternative or natural medicine for Parkinson's disease. It is also known for its effects on hormones. It decreases prolactin level and increases testosterone level in men. Therefore, it is used to treat hyperprolactinemia (high prolactin level) and low testosterone level.

KEYWORDS: *Velvet bean, levopoda, prolactin level, testosterone level.*

INTRODUCTION

The other parts of the *mucuna pruriens* plant are also used in ayurvedic medicines. The powder prepared from the outer hair that covers the seed pods is used as helminthic to kill the roundworm. The roots of the velvet bean plant are used to treat dysmenorrhea, dysuria and kidney diseases. The leaves of the plant are used for the management of arthritis, dysentery, heart diseases and diabetes.

Common Name – Cowhage**English Name** – Cowitch**Family** - Leguminosae**Name in Another Languages****Sanskrit** – Kapikachu, Aatmgupta**Gujarati** – Kauchaa**Telugu** – Piliaduggu**Marathi** – Khajkuhili**Kannada** – Nasukkuni**Ayurvedic Properties****Rasa** – Madhura, Tikta**Guna** –Guru, Snigdha**Virya** – Ushna**Vipaka** – Madhur**Dosha karma** – Pacifies Vata Dosha**Organ Effect** – Bones, Joints, Brain, Testes**Benefits and Uses**

The seeds of *Mucuna Pruriens* have effects on the mind and brain. In addition they provide strength to the body and improves blood circulation. So, seed are beneficial for psychological, neurological, musculoskeletal conditions. *Mucuna* roots also act as a nervine tonic, but its effects are lesser compared to its seeds. However, the roots are diuretic, anti-dysentery, anti-diarrheal and anti anti-seizure effects. Seed pods and outer hairs of seed pods are rarely used, but beneficial in arsenic poisoning, outer hairs of seed pods are also beneficial in worm infestation.

1. Infantile seizures (used in combination of *Anacyclus Pyrethrum*)
2. Female infertility
3. Dysmenorrhea
4. Dysuria
5. Kidney disease
6. Dysentery
7. Diarrhea
8. Delirium in high grade fever

Medicinal Parts

- Seeds
- Roots
- Outer hairs of the seed pods
- Leaves

- The seeds are most commonly used medicinal part of the *Mucuna pruriens*.

Phytochemistry

- *Mucuna pruriens* seeds contain protein like other legumes. The active constituent in the seeds is levodopa (L-dopa). L-dopa is a precursor to dopamine.
- It contains several active constituents in addition to L-dopa, which might also be responsible for its neuroprotective effect and makes it helpful in case of Parkinson's disease. In addition to L-dopa, it also contains isoquinoline alkaloids-tetrahydroisoquinolines.
- The cotyledon powder of *Mucuna pruriens* contains coenzyme Q-10 and NADH (Nicotine adenine dinucleotide).
- It also contains anthraquinones, terpenoids, saponins, tannis, glycosides and flavonoids.
- It contains gpMuc, a glycoprotein that inhibits trypsin.
- Behenic acid a type of fatty acid, is also present in the seeds.
- The leaves of the plant contain a hallucinogenic substance named Tryptamin alkaloid. However, it is present in low amount.

Pharmacological Actions

L-dopa present in *Mucuna pruriens* seeds (velvet beans) increases the production of dopamine, a neurotransmitter. It also boosts the norepinephrine level in the brain. Thus, it boosts mood and reduces stress. Through this action. it is also likely to boost libido. In ayurveda it is known for its aphrodisiac, androgenic, spermatogenic and strengthening actions. Through all these properties, it helps to treat the problem in men.

Therapeutic Indications

1. Parkinson's disease
2. Dementia
3. Amnesia
4. Mood disorders
5. Anxiety
6. Facial paralysis
7. Paralysis
8. Low testosterone in man
9. Hyperprolactinemia – High Prolactin in men
10. Erectile dysfunction
11. Impotence
12. Oligospermia
13. Physical weakness

14. Asthma
15. Muscle pain

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