

Review Article

Pharmacological Activities and Potential Health Benefits of *Macrotyloma*



Uniflorum - A Review

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Abstract:

Macrotyloma uniflorum is commonly known as Kulthy daal and horse gram which belongs to the family Fabaceae. Horse gram is rich in iron, calcium, protein, and polyphenols. It has powerful power to remove free radicals. *Macrotyloma uniflorum* is used as a remedial agent to treat fever, diabetes, kidney stones, common cold and constipation, and atherosclerosis. It also acts as a source of various nutraceutical food materials. Traditionally the seeds are used as diuretic, diaphoretic, anthelmintic and also useful in bronchitis, asthmatic conditions, nephrolithiasis, splenomegaly, haemorrhoid and urolithiasis. Extract various parts of the Horse gram are used for the treatment of asthma, bronchitis, heart disease and for treatment of urinary stones. The present review showed an overview on its pharmacological and phytochemical activities that are reported in the literature.

Keywords: Phytochemical, *Macrotyloma uniflorum*, Horse gram, health benefits and pharmacological activity.

Introduction

Herbal plants are known to be an significant source of free radical scavenging compounds and the health benefits of many herbal plants showed their antioxidant properties¹. Horse Gram is botanically called as *Mycrotyloma uniflorum*. Traditionally, *Mycrotyloma uniflorum* has been broadly used in the management of urinary stones, pyrexia and various tumors. Practically, the seeds

are used as diuretic, antioxidant and hepato-protective activity. Nutrient ingredients identified for horse gram seeds for proteins, carbohydrates, fat and ash contents were carried out essentially according to the standard method². The horse gram showed following significant pharmacological activities -

1. Liver protective property: Parmar *et al.*, have investigated the Liver protective activity of methanolic seeds extract of horse gram against paracetamol induced liver toxicity in albino rats.
2. Antiobesity activity: The horse gram exhibited major Antiobesity action.
3. Anthelmintic activity: Ansa philip *et al.* showed the anthelmintic activity of the seeds extract of *Horse gram* that similar effect with that of typical piperazine citrate.
4. Anticalcifying activity: Peshin and Singla investigated that in vitro effect of the immature seeds of horse gram on calcium phosphate crystallisation. They identified that the anticalcifying activity of *Horse gram* that was lost by treating with activated charcoal.
5. Antihyperglycaemic property: Lakshmi *et al.* showed that the Antihyperglycaemic activity of α -amylase inhibitor that was isolated from the seeds of horse gram in streptozotocin induced diabetic mice.
6. Antimicrobial activity: Basak and Ghosh studied the antibacterial activity of methanolic extract of the seeds of horse gram.
7. Anti-inflammatory and Analgesic activities of Horse gram: Analgesic and anti-inflammatory activity of the methanol extract of Horse gram seeds were identified in doses of 200 and 400mg/kg.
8. Antihypercholesterolemic significance of horse gram extract is inspected in mammals (rats) by evaluating its impacts on nourishment utilization, serum glutamate oxaloacetate transaminase (SGOT), weight gain, serum lipid profile, and body fat.
9. Antiuro lithiatic Activity: The calcium-binding proteins (CBPs) that were isolated from seeds of horse gram have a critical capacity in the avoidance of kidney stone generation and may prompt the development of antilithiatic arrangement.
10. Constipation: It is caused because of the absence of fiber in the eating routine, absence of water consumption, absence of mineral, and furthermore because of an undesirable way of life stress and a lot more reasons.

Conclusion

Horse gram is an important source of bioactive and nutritive compounds for as a potent health benefits such as phenolic compounds and fibers. It has high levels of antioxidant and radical scavenging activities. Enzymes like proteinase inhibitors are reported to treat severe health conditions such as several degenerative autoimmune diseases, anti-inflammatory diseases and obesity. Thus, horse gram crop showing more attention from food industries as a source of plenty nutrients with huge potential and health profit.

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