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A REVIEW ON ANALGESIC ACTIVITY OF MIMOSA PUDICA

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ABSTRACT

Mimosa pudica (*M. pudica*) Linn. (family: Mimosaceae) is a traditionally used folk medicine to treat various ailments including convulsion, alopecia, diarrhea, dysentery, insomnia, tumor, wound, snake bite, etc. The aim of this work to evaluate the Analgesic activity of Ethanolic extract of *Mimosa Pudica Linn* on rodents. In hot plate test the Pentazocin treated group, Tail flick Diclofenace treated group, and group given ethanolic extracts as showed increase in latency time dose dependent manner. Oral administration of ethanolic extract at a dose showed significantly reduction of writhing response induced by acetic acid as compared the dose given.

KEYWORDS: *Mimosa pudica Linn.*, Ethnolic extract, Analgesic activity.

INTRODUCTION

Nature has provided a complete store house of remedies to cure all aliments of mankind. This is where, nature provides us drugs in the form of herbs, plants and algae's to cure the incurable diseases without any toxic effect. *Mimosa pudica* belonging to the family *fabaceae* which is a herb used in Ayurveda. *Mimosa pudica* linn. Is commonly known as sensitive plant in English and lajvanti or Chhuimui in hindi, lajjalu in ayurveda, namaskari in Sanskrit language. The *Mimosa* plant grows mainly in tropical and subtropical parts of India, Brazil, Australia, Tanzania and South America. Sensitive plant grows on most well drained soils, even scalped or eroded sub-soils and soils with low nutrient concentrations. Sensitive plants live for about 1 to 2 years. Growth of plants that survive into the second year is much slower. Potted and field grown individuals are sensitive to over watering. Collection of plant is done during Sep-March in Indian conditions.

Phytochemicals

Phytochemical screening has revealed that the plant contains Mimosine,stigmasterol, leucoanthocyanidin, D-xylose, D-glucuronic acid, norepinephrine, D-pinitol, linoleic acid, oleic acid, palmitic acid, stearic acid, sitosterol and crocetin dimethyl.

Therepeutic use

Various medicinal and biological activities of mimosa pudica linn have been reported like Anti-ulcer, Hepatoprotective, Hypolipidemic, Enzyme inhibitory, Anti bacterial, Ayperglycaemic, Antiimplantation, Antiestrogenic, Anticonvulsant**,** Antitoxin, Antimalarial, Wound healing activity, Anti depressant activity.

Pharmacological activity of mimosa pudica.

Analgesic activity

1. Hot plate method

Analgesic activity of herbal extract will be evaluated using hot plate method the mice of either sex will divided into five groups of six animals each. Group 1 will be served as a control. Group 2 will be served as a standard (3 mg/kg body weight of Pentazocin.) The group 3, 4 & 5 will treated with herbal extract with lower dose, middle dose & higher dose. Mice will placed individually on the hot plate maintain and at 55+1 0 C for not more than 15 sec and the latency to lick paws will be noted. The basal reaction time will be noted before 15, 30, 60 and 120 min after the administration of treatment both test.

Species & Strain: Mice Total Numbers of Animals required: 60 mice

Gender: Male/Female Body wt.: 25-30 gm

2. Tail flick test

This test is also used for the screening of centrally acting analgesic drugs. The rats were kept individually in a rat holder and the middle section of tail was placed on the nichrome wire of the analgesiometer. Then, 6-mA current was applied to the wire. Within a few seconds, the animal flicked he tail aside or tried to escape. The time when animal withdraw (flick) its tail from the hot wire was recorded as the reaction time (maximum 30 s). The reaction time of the test groups was recorded at 30 min intervals for 150 min and compared with that of the control group.

CONCLUSION

This review discusses the chemical constituent, pharmacological and therapeutic Effects of *Mimosa pudica*. According to the wide Range of pharmacological activities, Many researchers have been demonstrating the presence of awide variety of bioactive Compounds in the leaf, seed and roots of medicinal plant that are capable of showing Beneficial effects on human health. If we consider that chronic degenerative diseases have reached epidemic proportions in many countries and increase the socio-economic Burden for the public health system, it is necessary to find non-allopathic alternatives that minimize risk factors of these diseases and help in the treatment. Further more, Population consumes medicinal plants also to treat other kind or diseases because of high costs of allopathic medications. Natural ingredient has been in use since times immemorial to treat wide range of indications. It has been subjected to quite extensive phytochemical, experimental and clinical investigation.

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