Commentary   Open Access

HPTLC and GC-MS Analyses of Biologically Active Extracts and Fractions from Premna Latifolia Roxb Leaves.

Rajesh Kumar, Brijesh Kumar*, Ashutosh Kumar, Ajay Kumar, Manish Singh

Department of Pharmacology, Institute of Medical Sciences, Banaras Hindu University Varanasi, India

Introduction

The goal of this study was to look at the various phyto-constituents in the ethyl acetate fraction of Premna latifolia methanolic leaves extract (MEPL) and see if they might be used for central/peripheral analgesia and inflammation. The goal of this study was to look at the various phyto-constituents in the ethyl acetate fraction of Premna latifolia methanolic leaves extract (MEPL) and see if they might be used for central/peripheral analgesia and inflammation. The analysis was carried out using GC-MS and HPTLC equipment. Premna latifolia methanolic leaves extract was tested for various activities at doses of 100 mg/kg, 200 mg/kg, and 300 mg/kg. In numerous animal models, key phytoconstituents of MEPL have been found to have significant analgesic and anti-inflammatory effects.

Phytomedicines have been used by people all over the world since ancient time. Plant-based crude medications have been used by Northern Indian tribes to cure a variety of ailments. In Himachal Pradesh's local areas, unregistered individuals known as Vaids employ crude medications to treat pathological conditions. This uncommon value, which lacks study data, requires rigorous scientific research to be validated. Premna latifolia is a member of the Verbenaceae family and is locally known as Agnimantha. Premna contains a large number of species, with 35-40 of them found in India. Premna latifolia has traditionally been used as an antihistamine and antipyretic. It's been used to treat numerous illnesses as an anti-diuretic. Additionally, sinusitis and pharyngitis have been treated with it. In this study, we used modern instruments like GC-MS and HPTLC to analyse the various phytoconstituents in the ethyl acetate fraction of Premna latifolia methanolic leaves extract. The major goal was to determine the pharmacological activity of the ditepenes and triterpenes found in their leaves. Furthermore, numerous animal models were used to assess its use as a peripheral analgesic/central analgesic and anti-inflammatory to create scientific data.

Conclusion

Finally, experimental results on Premna latifolia leaves extract supported the use of MEPL for analgesic and inflammation treatment. The discovery was made through a series of trials, and it has been shown to be a safe treatment for a variety of pain conditions. MEPL has analgesic effects in both the central and peripheral nervous systems, which could be related to the presence of several phytoconstituents in the crude extract. The isolation and identification of numerous metabolites from crude drugs will aid in determining the precise mechanism of action. The goal of metabolite identification is to aid therapeutic applications in the treatment of a variety of illnesses.

Acknowledgement

Conflicts of Interest

The authors declare no conflict of interest.

How to cite this article: Kumar, Rajesh, Kumar B, Kumar A and Kumar A, et al. "HPTLC and GC-MS Analyses of Biologically Active Extracts and Fractions from Premna Latifolia Roxb Leaves" *J Neurol Disord* 9(2021): 454

Address for Correspondence: *Brijesh Kumar, Department of Pharmacology, Institute of Medical Sciences, Banaras Hindu University Varanasi, India, Email: asthwal@reffmail.com*