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PHYTOCHEMICAL AND PHARMACOLOGICAL STUDIES OF ETHANOL EXTRACT OF DALBERGIA SISSOO SEEDS: AN APPROACH FOR THE IN-VIVO ANALGESIC AND ANTIPYRETIC ACTIVITIES

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ABSTRACT

In the course of search for the biological active constituents present in the alcoholic extract of Dalbergia sissoo seeds (Shisham or Sisam), the peripheral analgesic activity of Sisam seed extract (SSE) was studied using acetic acid-induced writhing in mice and by Randall-Selitto assay in rats. Further, the central analgesic activity of SSE was studied by tail-clip test and hot plate method in mice. The antipyretic activity of SSE was studied in Brewer's yeast-induced pyrexia in rats. Results showed significant decreased writhing movements in mice by acetic acid-induced writhing and increased pain threshold capacity in rats in Randall-Selitto assay and the reaction time in hot-plate test but not in tail-clip test for analgesic activity. Moreover, it also showed significant antipyretic activity in Brewer's yeast-induced pyrexia in rats throughout the observation period of 6 h. Thus, SSE has moderate analgesic and remarkable antipyretic activities.

KEYWORDS
Dalbergia sissoo - Analgesic activity; Antipyretic activity; Tail-clip test; Hot plate method; Brewer's yeast-induced pyrexia.

INTRODUCTION

Dalbergia sissoo Roxb. belongs to Leguminoseae plant family which is native to India and had been long cultivated in Egypt has shade tree on the banks of irrigation canals [1]. It is a large deciduous tree, often with crooked trunk and light crown. Under favorable conditions the tree attains a height of about 100 ft and girth up to 8 ft. It grows well in porous soils containing sand, pebbles and cinders. It reaches its finest development in riverain tracts [2].
Synthesis and investigation of anticonvulsant and antidiabetic activities of newly synthesized bis-benzimidazole derivatives

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Abstract

Considerable attention has been paid for the synthesis of bis-benzimidazole derivatives 1(a-l) by the cyclo-condensation of 4-methyl-o-phenylenediamine with various dicarboxylic acids using a catalytic amount of phosphotungstic acid (PTA) as a catalyst. PTA has been demonstrated as an efficient catalyst for this methodology to afford the products in excellent yield with high purity. The synthesized compounds were screened for their in-vivo anticonvulsant activity by Maximal Electroshock (MES) model and antidiabetic activity using Oral Glucose Tolerance Test (OGTT). Bioassay indicated that compounds 1(d), 1(g), 1(h), 1(i), 1(j), and 1(k) have shown good anticonvulsant activity compared to standard drug Phenytoin. Compounds 1(c), 1(d), 1(g), 1(h), 1(k) and 1(l) have showed significant antidiabetic activity when compared to Glibenclamide as standard drug. The structures of newly synthesized compounds were characterized by IR, ¹H-NMR, ¹³C-NMR, MS and elemental analysis.

Keywords: Anticonvulsant; Antidiabetic activity; Bis-benzimidazole; Maxima electroshock; Phosphotungstic acid.
List of Research Papers Published / Communicated

1. Phytochemical and pharmacological studies of ethanol extract of Dalbergia Sissoo seeds: An approach for the In-vivo analgesic and antipyretic activities.
   Mallinath H. Hugar, Kallappa M. Hosamani* and Md Liyakath Ahmed

2. Synthesis and investigation of anticonvulsant and antidiabetic activities of newly synthesized bis-benzimidazole derivatives
   Mallinath H. Hugar, Kallappa M. Hosamani * and Suresh D.K
   *International Journal of Drug Formulation and Research, 2010, 1 (iii), 240-262

   R.S.Keri, K.M.Hosamani* and M.H.Hugar
   *European Journal of Medicinal Chemistry. 2010, 45, 2597-2605
   Elsevier Publication.

   R.V.Shingalapur, K.M.Hosamani*, R.S.Keri and M.H.Hugar
   *European Journal of Medicinal Chemistry, 2010, 45, 1753–1759
   Elsevier Publication.

   Harisha R.S., *Hosamani K.M. and Hugar M.H.
   *Journal of Pharmacy Research, 2010, 3(12), 2853-2855

   Raga Basawaraj, Goled Shashikanth, M.H.Hugar and S.S.Sangapure*
   *Indian Journal of Heterocyclic Chemistry, 2009, 18, 329-332

   Irfan N. Shaikh, K.M. Hosamani, Harisha R. Seetharama reddy and M. H. Hugar
   *Archiv der Pharmazie, Wiley-InterScience Publication.(Accepted, 2011).
8. Phytochemical and pharmacological studies of ethanol extract of *Anethum graveolens* seeds: An approach for the *In-vivo* Anti-inflammatory, Analgesic and Antipyretic activities

*Mallinath H. Hugar*\(^a\), Kallappa M. Hosamani\(^a\)* and D.K.Suresh\(^b\)

*Phytochemistry, Elsevier Publication.* (Communicated, 2010).

9. Synthesis of Bis-Benzimidazoles Efficiently Catalyzed by PTA and their *In-Vivo* Evaluation for Anti-inflammatory, Analgesic and Anti-pyretic Activities

*Mallinath H. Hugar*, Kallappa M. Hosamani\(^*\) and Harisha R. Seetharamareddy

*Archiv der Pharmazie, Wiley-InterScience Publication.* (Communicated, 2010).

10. Design and synthesis of Bis-benzimidazoles efficiently catalyzed by PTA and their *in-vivo* evaluation for anti-inflammatory, analgesic, anti-convulsant, anti-pyretic and anti-diabetic activities

*Mallinath H. Hugar*, Kallappa M. Hosamani\(^*\), Harisha R. Seetharamareddy and D.K.Suresh

*Bioorganic Medicinal Chemistry, Elsevier Publications.* (Communicated, 2010).
Seminars, Conference and Workshop attended

List of Seminars, Conference and Workshop attended

- **Comprehensive Orientation Programme on Pharma Industry** held at Hyderabad Karnataka Pharmacy Excellence Academy, Gulbarga 28-Feb-2006 to 2-March-2006.


- Two days seminar on **Patient's counseling** held at Luqman College of Pharmacy, Gulbarga in Association with Gulbarga District Druggist & Chemist Association. 23, 24 -March-2007.

- National Workshop on **Challenging Techniques in Phytochemical, Analytical and Pharmacological Evaluation of Herbal Products** held at Luqman College of Pharmacy, Gulbarga: 11, 12- Jan-2008.

- One day Work Shop on **Leadership in Health Care System** held at Rajiv Gandhi University of Health Sciences, Karnataka, Bangalore. 21-Jan-2008.


- Two days Workshop on **Recent Trends in Pharma Sciences** held at Karnataka College of Pharmacy, Bidar. 5&6- March-2009.

- Two days National Conference on **Recent Trends in Applied Sciences** on 4, 5- Feb -2009 held at V.G.Womens College, Gulbarga.


- Three days 15th Annual Conference & First International Convention of Society of Pharmacognosy on **Global Challenges and Opportunities in Herbal Medicine** jointly organized by K.L.E.University, Belgaum and Indian Council of Medical Research (ICMR). 18th to 20th -Feb- 2011.