

**EVALUATION OF ANTI-INFLAMMATORY, ANALGESIC  
AND ANTI-ARTHRITIC ACTIVITY OF MAHANARAYANA  
TAILAM IN LABORATORY ANIMALS**

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The present study was conducted to evaluate the anti-inflammatory, analgesic and anti-arthritis activities of *Mahanarayana tailam* (MT) in laboratory animals.

Carrageenan induced rat paw oedema, Freund's adjuvant induced arthritis in rats and Eddy's hot plate induced pain in mice were used as experimental models. MT was applied to the planter surface of the hind paw by gently rubbing to treatment groups.

The external application of MT, showed significant inhibition of inflammation ( $P < 0.01$ ) as compared to control and less than Piroxicam gel 0.5%. Analgesic effect as compared to control was found to be significant ( $P < 0.01$ ) and almost equal to the standard drug. Anti-arthritis activity of the oil was observed almost equal to the standard drug used in the study. Histopathology of ankle joint revealed that Piroxicam as well as MT inhibits the inflammation in the treated animals. However, mild mononuclear infiltration of surrounding tissue was observed in the MT treated animals. These observations suggest that MT may be used to treat inflammation, pain and arthritis.

## **INTRODUCTION**

Rheumatoid arthritis (RA) is a common human autoimmune disease characterized by chronic inflammation of the synovial membranes with concomitant destruction of cartilage and bone. It affects approximately 5 million people worldwide of which 50 % are unable to work beyond 10 years of diagnosis. Anti-inflammatory agents are administered as long-term treatments for patients with rheumatoid arthritis. However, anti-inflammatory agents carry the risk of gastrointestinal toxicity hence, their use are limited. Non-steroidal anti-inflammatory drugs are commonly used in practices for the treatment of various inflammatory conditions. It is known that all conventional analgesics and anti-inflammatory agents produce various adverse effects. In an attempt to avoid adverse gastrointestinal effects, research is now focusing on Ayurvedic drugs which are devoid of such adverse effects.

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