

**Introduction:**

‘RD/M.ph.AA-01’ is a polyherbal formulation containing extracts of 11 medicinal plants used in folk medicine for the treatment of inflammation and pain associated with rheumatoid arthritis, osteoarthritis, goutarthritis, sciatica, lumber spondylitis, cervical spondylosis & neuromuscular disorders. The present study was under taken to screen & validate anti-arthritic, anti-inflammatory & analgesic activity of RD/M.ph.AA-01.

**Methodology:**

Female Albino Wistar rats weighing 130-150 g were divided into 5 groups of 6 rats. Arthritis was induced by a 0.1 ml injection of CFA into the sub-planter surface of right hind paw. Drugs were administered orally once a day, from the day of injection of CFA and continued up to 21<sup>st</sup> day. The assessment of paw volume, body weight was done on 0, 4, 7, 14 and 21<sup>st</sup> day. On 21<sup>st</sup> day animals were sacrificed, serum SGPT, SGOT, ALP, TP, Hb, RBC, WBC, Lymphocyte, Neutrophil, ESR, lipid peroxidation in liver, hydroxyproline, hexosamine in edematous tissue were assessed. Histopathology of knee joint was studied. The polyherbal formulation was screened for anti-inflammatory activity in rats using cotton pellet granuloma, formalin induced edema and croton oil ear edema in mice. The central and peripheral analgesic activities were studied using tail immersion method in rats and acetic acid induced writhing test in mice.

**Results:**

RD/M.ph.AA-01 showed significant anti-arthritic effect by decreasing the degree of inflammation and levels of haematological, biochemical and histopathological come to normal levels in CFA induced arthritic rats. The decreased paw volume of formalin induced edema in rats and significant effect in biochemical parameters compared to control group. RD/M.ph.AA-01 significantly increased the reaction time in tail immersion test in rats and decreased writhes in mice compared with control group.

**Conclusion:**

The RD/M.ph.AA-01, a polyherbal formulation possesses anti-arthritic, anti-inflammatory and analgesic property.

**Keywords:** RD/M.ph.AA-01; Complete Freund's Adjuvant.