

Study of Therapeutic Potential of Dodonaea Viscosa Against Rheumatoid Arthritis in Collagen Induced Arthritic Mouse Model

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Abstract : Rheumatoid Arthritis (RA) is a systemic autoimmune inflammatory disease that primarily affects the joints. RA is caused in many cases by the interaction between genes and environmental factors, including tobacco, that primarily involves synovial joints. It typically starts in small peripheral joints, is usually symmetric, and progresses to involve proximal joints if left untreated. The prevalence of rheumatoid arthritis varies substantially around the globe, ranging from 0.25% to 1%.3. Rheumatoid arthritis can affect individuals of any age, with an increased incidence in people older than 40 years. Women are affected two to three times more frequently than men. The present work involved evaluating the toxicity and therapeutic potential of Dodonaea viscosa in a collagen-induced arthritic mouse model. Chemical analysis exhibited that Dodonaea viscosa has high levels of beneficial compounds, including phenols, flavonoids, and other phytochemicals. The Dodonaea viscosa showed significant antioxidant, anti-inflammatory, and anti-arthritic potential without toxic effects. Arthritic mice treated with Dodonaea viscosa showed reduced levels of rheumatoid factor and paw edema, while no significant effects on spleen indices and radiological examination of paws were found compared to control untreated arthritic mice. In summary, the Dodonaea viscosa treatment results in improvement in Arthritic Mice Model for which further studies are required.

Keywords : rheumatoid arthritis, dodonaea viscisa, anti-inflammatory, anti-rheumatic

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