

Recent Advances in the Pharmacotherapeutics Application of Hyaluronic Acid: A Review

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Abstract

Hyaluronic acid (HA), a natural non-sulphated glycosaminoglycan and biopolymer, plays a multifaceted role in regulating various biological processes. HA is found in many tissues and fluids but is abundantly available in articular cartilage and synovial fluid. HA has been used for different pharmacotherapeutics for the last few decades, including osteoarthritis, cartilage repair, and wound healing. Due to its distinct physicochemical properties, HA is used to make scaffold materials suitable for tissue engineering. Recent advanced research has revealed that the effectiveness of HA depends on its molecular weight (M_w). This review summarised the recent progress in different pharmacotherapeutics applications.

Keywords: Biomedical application; Biopolymer; Glycosaminoglycan; Tissue engineering; scaffolds