

A Comprehensive Review of Osteoarthritis: Current Understanding, Pathophysiology, Diagnosis, and Management

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ABSTRACT

Osteoarthritis (OA) is a painful condition affecting bones and joints, characterised by abnormal changes and symptoms in the joint tissues. It primarily focuses on cartilage damage over time, causing swelling, tenderness, or stiffness in the joints. It is perhaps the biggest contributor to tormenting and afflicting patients suffering from joint disability. It is expected that the incidence of OA will steadily increase due to aging population and an increasing incidence of obesity. In recent years, there has been notable positive progress in the treatment of OA due to an improved understanding of its pathogenesis and mechanisms of diagnosis and treatment. At this period, the diagnosis mainly relies on the physician's experience and judgment, combined with precise differential diagnosis of other forms of arthropathy. Self-care and exercise regimen customization form the basis of OA treatment and must be taught to the patient. These are usually done together with a myriad of pharmacological care, mainly directed towards analgesia. In extreme cases, prosthetic surgery becomes necessary as the last option and is always accompanied by short-lived effectiveness, along with many adverse effects. To enhance the care of patients with OA, it is necessary to evaluate the modulation or substitution of traditional pharmacologic therapies with natural drugs and extracts. Such compounds have a much greater safety profile and act on perturbed pathways involved in the pathophysiology of OA, creating an integrative approach to this multifactorial disease.

Keywords: Osteoarthritis; Pathophysiology, Diagnosis; Non-Pharmacological approaches; Pharmacological approaches

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