

OSTEOARTHRITIS – LEADING CAUSE OF DISABILITY IN THE ELDERLY



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Background

- Osteoarthritis (OA) is a slowly progressive musculoskeletal disorder associated with increased age and is characterized by joint pain and tenderness, limitation of motion, joint deformity and instability.
- It has long been considered a noninflammatory process, but new insights suggest a role of proinflammatory mediators and proteases therefore enabling development of new treatment targets.

Material & Methods

- Multiple risk factors for developing OA have been identified, including age, obesity, joint injury, genetics, gender, as well as anatomical factors.
- The pathogenesis of osteoarthritis involves various cytokines, chemokines and proteases and resembles that of a chronic nonhealing wound.
- There is growing evidence implying activation of the innate immune system as well as epigenetic changes contributing to development of OA.

Results

- Available treatment modalities consist of pain management but no treatment has been proven to alter the structural progression of the disease.
- Agents inhibiting catabolic processes and those stimulating anabolic processes, as well as drugs that modify inflammatory pathways and bone remodelling are being investigated.
- They are referred to as disease-modifying OA drugs (DMOADs) or structure-modifying OA drugs (SMOADs).
- Investigational drugs targeting pain have focused on inhibiting nerve growth factor.
- Clinical difference between osteoarthritis and rheumatoid arthritis, the two most common forms of arthritis, is shown in the images.



Image 1. Osteoarthritis



Image 2. Rheumatoid arthritis

Conclusion

- Osteoarthritis is the most common form of arthritis.
- Since it affects mainly the elderly and is associated with substantial disability and reduced quality of life, it represents a great burden for the aging population.
- Novel insights into pathophysiology of the disease promise new treatment modalities, as opposed to current treatment targeting symptomatic relief.