



Is subchondral bone the crucial point for the pathogenesis and the treatment of osteoarthritis?

Subkondral kemik osteoartirit patogenezi ve tedavisi için en önemli nokta mıdır?

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Osteoarthritis results from a complex system of interacting mechanical, biological, biochemical, molecular and enzymatic factors.^[1,2] There is strong evidence that bone marrow lesions and bone cysts have an important role in the pathogenesis of knee osteoarthritis.^[3] Bone marrow lesions including dense bone islands may cause decrease of the elasticity in subchondral bone.^[4] Eventually, they may result in osteoarthritis, playing a key role in the initiation and progression of cartilage erosion.

Loss of osteochondral integrity removes the barrier between intra-articular and subchondral compartments, exposing subchondral bone and its nerves to abnormal chemical and biomechanical influence.^[5]

Sensitive and accurate methods, to assess structural changes at the onset of osteoarthritis such as high-resolution magnetic resonance imaging are therefore crucial in the discovery of the key players in the initiation and progression of the disease, differentiation of the disease subgroups, and assessment of the therapeutic efficacy of novel treatments.^[1,6]

Increased bone turnover have been detected in the early evolution of some forms of osteoarthritis, like in osteoporosis, and recent findings suggest that

some drugs may be useful in treating both processes simultaneously.^[5,7]

It has long been considered that osteoarthritis is a disease of articular cartilage, whereas, with the introduction of the recent data, subchondral bone is attracting more attention.

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