

## **Microbial Profile and Antimicrobial Susceptibility of Isolates from dogs with Otitis External in Kenya. Kenya Veterinarian**

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### **Abstract**

Degenerative joint disease is a common and important disease that affects humans as well as domestic animals especially dogs and horses. The etiological factors for the disease in humans and animals are similar. The disease is characterized by progressive deterioration of the joint, thinning of hyaline cartilage, joint effusion and particular osteophyte formation. Trauma, sepsis, prolonged immobilization, immune-mediated disease, congenital malarticulation (e.g. hip dysplasia) or developmental diseases (e.g. Osteochondrosis.) may incite the development of degenerative joint disease. The insults stimulate the release of degenerative enzymes from chondrocytes and these destroy the particular cartilage matrix. Two distinct functional process in injured chondrocytes are responsible for the positive feed-back cascade the ultimately results in joint destruction. The catabolic process is induced by proinflammatory stimuli and causes secretion of proteases, suppression of matrix synthesis and inhibition of chondrocytes proliferation. The anabolic programme causes the increased production of extra cellular matrix, protease inhibitors and cell replication. In the recent past a lot of basic and clinical research on degenerative joint disease has been conducted. Deeper understanding of the pathophysiology has resulted in the development of new treatment modalities for the disease. Practicing clinicians need to keep a pace with new knowledge and biomedical technology in order to manage their patients in the best way possible. This paper collates the current knowledge of the pathophysiology and clinical management of degenerative joint disease with special reference to the canine species.