

Challenges in the Assessment of Pain in Osteoarthritis



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Abstract

Knee osteoarthritis (OA) is one of the most prevalent causes of pain and disability worldwide, affecting over 600 million people. Once viewed as a simple disease of cartilage, OA is now understood as an umbrella disorder involving multiple endotypes and pain mechanisms, influenced by biological, mechanical, and psychosocial factors. Pain in OA is heterogeneous, encompassing nociceptive, neuropathic, and nociplastic components, and follows different trajectories ranging from gradual progression to acute, flare-driven patterns. These flares are shaped not only by structural joint changes but also by mood, coping strategies, sleep, and physical activity. Conventional measures such as WOMAC, KOOS, and ICOAP capture symptom severity but fall short in differentiating pain subtypes or predicting outcomes. Trial failures in OA are partly attributable to poor characterisation of pain heterogeneity, high placebo responses, and regression to the mean. Improved trial design strategies include stratifying participants by pain phenotype, adopting placebo run-ins, and enhancing standardisation of pain reporting. This presentation will highlight advances in understanding and assessing OA pain, the importance of recognising flares, and implications for both clinical practice and disease-modifying osteoarthritis drug (DMOAD) trials. Tailored assessment and targeted interventions are essential to improve outcomes and reduce the persistent cycle of failed therapies.

Biography

Professor Hunter is a rheumatologist clinician-researcher whose primary research focus is clinical and translational research in osteoarthritis. He is ranked as the leading expert in the world on osteoarthritis on expertscape.com, is the section editor for UpToDate osteoarthritis, the Editor in Chief for Osteoarthritis and Cartilage, host of the Joint Action podcast, and has over 700 publications in peer-reviewed journals. He leads the osteoarthritis team at the Kolling Institute, which is dedicated to improving our understanding of osteoarthritis and the quality of life for those who suffer from this prevalent disabling disease.

***** ALL ARE WELCOME *****

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