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Lumbar disc disease characteristics in asymptomatic adults without history of back pain

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Abstract

Costs for back pain (BP), the most common musculoskeletal complaint in outpatient clinics, have escalated without evidence of improvement. Disagreement to clearly classify BP has resulted in costly, inappropriate treatment. Lumbar disc disease (LDD) is the most common underlying cause, thus differentiating BP related to LDD from "not-LDD" is critical. The purpose of this preliminary study was to rule out presence of LDD characteristics found in patients with BP, in a sample of asymptomatic adults without BP history. Using novel reference criteria based on LDD genotype and MRI Modic score, a clinical profile was constructed for "no LDD, no BP". Results showed in 10 (6 female) adults from various/mixed races with typical age, anthropometrics, and activity level for BP: no fear-avoidance or history of a fall/accident, no evidence for inflammation or bone remodeling (COMP, HsCRP); pain-free in repeated lumbar movement testing. Reference criteria were: all MRIs were negative for LDD (no Modic score); significant decrease or absence of *IL-6-174C, IL-6 597A, MMP3-5A, VDR TaqI* genetic markers that have been associated with LDD ($p<.009$). Currently, data analysis of completely collected clinical data (history, clinical tests, biomarkers), is underway, using the novel MRIs/genotype reference criteria on 12 adults (6 women) with BP, intending on further discriminate characteristics of patients with BP who centralize symptoms. These data will inform future study designs whose results will enable clinicians to better link examination to classification, ultimately improving intervention and outcomes.

Biography

Dr Dionne received her BS in Physical Therapy from University at Buffalo, MS in Education from Syracuse University, a DPT from Arizona School of Health Sciences, and PhD in Physical Therapy from Texas Woman's University. She is a tenured Associate Professor in Rehabilitation Sciences and Director of the Mechanical Therapy Research Lab at the University of Oklahoma Health Sciences Center. She has authored more than 40 peer-reviewed publications and innumerable presentations; is serving currently on the Board of Directors at NCOPE and as a Content Expert for the American Board of Physical Therapy Specialties.