

## Influence of pain quality on physical performance in subjects with osteoarthritis of knee

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**Objectives:** Neuropathic pain features are frequently observed in subjects with knee osteoarthritis and this may be related to reduced physical performance. The objectives of the study were to compare the physical performance between the subjects with neuropathic and nociceptive pain features in osteoarthritis of knee and to assess the relationship between pain quality and physical performance in subjects with Osteoarthritis of knee.

**Methods:** 80 subjects, age ranging from 40-70 years of both the genders with symptomatic and radiologically verified unilateral knee osteoarthritis (KOA) were included for the study. Prior to the study all the subjects completed baseline interview including demographic data and the subjects were categorized under neuropathic and nociceptive group by using Pain Detect Questionnaire (PDQ). One time measurement of pain intensity, isometric strength of quadriceps & hamstrings and knee joint range of motion were assessed in both the groups. Physical performance was measured using Osteoarthritis Research Society International recommended physical performance tests for knee osteoarthritis - 40m Fast Paced Walk Test, six Minute walk test, 30 Second chair stand test, Timed up and Go test, Stair Climb Test and osteoarthritis related disability-KOOS questionnaire.

**Results:** Of the 80 subjects, 40 subjects were in neuropathic group (44%), 40 were in nociceptive group. The physical performance ( $p < 0.05$ ) was reduced in neuropathic group. There existed a weak negative correlation between pain quality and variables measured ( $p < 0.05$ ).

**Conclusion:** Physical performance was significantly reduced in subjects with neuropathic pain features and there exists a negative correlation between the pain quality and most of the variables.

### Biography

Natarajan Venkatesh is working as a Professor in the Faculty of Physiotherapy, at Sri Ramachandra University, Chennai, India. He has been in clinical and teaching Physiotherapy for the past 25 years. He is a PhD scholar. He is working on Influence of Exercise on Autonomic Nervous System. He has Distinguish Service Award by the Indian Association of Physiotherapists on 23.01.05; "Best Teacher Award" (Chosen by Vice Chancellor, The Tamil Nadu Dr. MGR Medical University on 05.09.2011); Fellowship Award-51st by The Indian Association of Physiotherapists 2013 (FIAP); Certificate of Commendation and Cash Award given by the Vice-Chancellor, Sri Ramachandra Institute of Higher Education and Research, for meritorious service in enhancing the level of Physiotherapy in India.