

Known risk factors, management modalities and its association among knee joint osteoarthritis patients attending the Orthopedic clinic, Teaching Hospital Jaffna

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Introduction and Objectives: Osteoarthritis is a common disorder which can affect any joint but more common in knee, hip, and hands with multiple risk factors. These risk factors broadly classified into genetic, constitutional, and biochemical factors. Lifestyle modification, medication and surgery are included in management modalities. The aim of the study was to describe the known risk factors, management modalities and its association among knee joint osteoarthritis patients attending orthopedic clinic Teaching Hospital Jaffna.

Methods: This descriptive cross-sectional study was carried out among 399 patients attending orthopedic clinic Teaching Hospital Jaffna using interviewer administered questionnaire from December 2019 to January 2021. Questionnaire and patients' records were specifically used to collect data about management modalities. Overall results were assessed using descriptive statistics and association between known risk factors and management modalities was assessed using inferential statistics (t test and chi square test) using SPSS software. Ethical approval was obtained from Faculty of Medicine, University of Jaffna.

Results: Response rate of our study was 93.4%. Mean age of the participants was 58.9 years. Majority were females (n=265, 66.4%) in that 67.9% had three or more than three completed pregnancies. 79.6% were postmenopausal women. Majority of our participants were in overweight category (41.9%, n=201), 24.8% (n=99) had a positive family history, 18% (n=72) had traumatic history of knee and major occupational risk factor was heavy physical activity which comprise of 25.7% (n=102). 54.4% of the participants showed history of systemic diseases. 79.7% (n=318) of the participants were treated with non-surgical intervention that includes lifestyle modification and medication. Association between known risk factors and management modalities was statistically significant with age (p <0.001), sex (p <0.001), family history (p=0.007), systemic diseases (p-value=0.02) and previous trauma history (p <0.001).

Conclusion: Known risk factors of the knee joint osteoarthritis include, increasing age, female population, BMI, occupational risk factor, family history, history of systemic diseases, previous history of trauma, physical activity level (moderately active) and number of completed pregnancy. Around four fifth of the population were followed non-surgical interventions (79.7%). Age, sex, family history, systemic diseases, and trauma were found to have a significant association with management modalities.

Keywords: Knee joint osteoarthritis, Risk factors, Management modalities, Association