Research

The Identification of influential factors in knee osteoarthritis and its prevalence among referals to orthopedic clinics in Tehran

abstract

This article is the outcome of an Ex Post Facto study on the files of 176 patients complaining of knee pain who referred to orthopedic clinics in Tehran within the period of 10 months from Aban 1377 to Mordad 1378. The selection of the files was implemented randomly and the goal of the study was to investigate the maior factors influencing knee osteo-arthritis and to estimate its prevalence. The prevalence of osteo-arthritis in "only left knee" cases turned out to be 22.9%, in "only right knee" cases 39.4%, and in "both knees" cases 37.6%. The gender variable showed a significant effect on the prevalence of this condition ($p<0.002$) so that the prevalence in males is higher than that in females although the prevalence is higher in urban than in rural areas, this difference is not significant indicating that location does not influence this condition ($p<1471$).

Other results showed that there is a significant positive go-togetherness between age and the prevalence of the condition ($p<0.001$). There is also a significant positive correlation between occupations demanding physical labor and the prevalence of the condition. From factors aggravating pain in both "only right knee and both knees" cases, the highest effect belongs to sitting with entirely bent kness, and the lowest has to do with short distance walking, whereas in the case of "only left knee" cases long distance walking has the highest and rest the lowest effect on pain increase in all the three groups. full rest leads to 40% decrease in pain, while sitting on a chair has the lowest effect on the relief of the pain, but in "only left knee" cases extending the lower extremities in sitting has the lowest effect on pain relief. Physical factors including apparent joint deformity in standing position, knee range of motion and meniscus laceration have a significant effects on this condition. Furthermore factors noticed through radiological observations such as joint atrophy, sub-cartilaginous bone sclerosis, cyst formation, osteophyte formation and biomechanical abnormality in the knee, all have significant effects on knee asteo-arthritis. Factors including height, weight, knee trauma, knee infection record, using chairs, pharmaceutical treatment, health system type, doing exercises, and treatment non-pharmaceutical also have an impact on this condition.

Key words: Knee osteo-arthritis / left knee/ right knee / both knees

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