



Prevalence of Major Rheumatic Disorders in Jammu

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Abstract

A study was undertaken to determine the point prevalence rates of major rheumatic disorders in Jammu (J&K). WHO-ILAR COPCORD CCQ (World Health Organisation-International League Against Rheumatism Community Oriented Programme for the Control of Rheumatic Diseases Core Questionnaire) was used followed by clinical examination for the diagnostic purposes. About one-fourth of the population surveyed in this study had rheumatic complaints. LBA was the most frequently encountered rheumatic ailment.

Key Words

Rheumatic; WHO-ILAR COPCORD CCQ; Osteoarthritis (OA); Low backache (LBA); Rheumatoid arthritis (RA); Soft-tissue rheumatism (STR); Fibromyalgia (FM).

Introduction

Musculoskeletal diseases are among the most prevalent chronic conditions in the developed and developing world (1). Rheumatism is derived from Greek word 'rheumatismos' meaning a stream or flow. OA, RA, spondyloarthropathies, soft-tissue rheumatism, LBA and arthralgias are the well-known and most important rheumatic disorders. OA has emerged as the most common form of joint disease in almost all the populations studied (2). Soft-tissue rheumatism refers to non-arthritic rheumatic complaint presenting mainly as pain. LBA is a symptom and not a disease and is a type of soft-tissue rheumatism but for the epidemiological purposes is kept separately because of the health burden. LBA with or without sciatica has reached epidemic proportions in most developed countries (3). Systemic lupus erythematosus (SLE), systemic sclerosis (SS), and Sjogren's syndrome are important connective tissue

disorders causing rheumatism but their prevalence being very low, community based studies are relatively insensitive for their estimation. The common community based rheumatic diseases are not RA or SLE but conditions like OA, LBA, soft-tissue rheumatism etc. (4). Spondyloarthropathies consist of a group of heterogeneous but interrelated inflammatory arthropathies affecting the synovium and the enthesis leading to spinal and oligoarticular peripheral arthritis in a genetically predisposed individual. HLA-B27 bears a strong association with these diseases.

Gout refers to crystal-induced arthritis related to uric acid and urate deposition in joints and tissues. Apart from monosodium urate, calcium pyrophosphate dihydrate, calcium hydroxyapatite and calcium oxalate also cause crystal-induced arthritis. Soft-tissue rheumatism refers to non-arthritic rheumatic complaint presenting mainly as pain.

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ILAR was founded in 1927 and presently, more than 70 countries throughout the world are having national societies affiliated to ILAR. WHO-ILAR COPCORD has played an important role in collecting data on rheumatic complaints and disability (3). Data regarding the burden of rheumatic diseases in India is scanty and only few studies on the epidemiology of rheumatic diseases have been conducted in India. Aim of the present study was to find the point prevalence rates of rheumatic diseases in Jammu.

Material and methods

Present study is undertaken to determine the point prevalence rates of major rheumatic disorders in Jammu (J&K). One thousand and fourteen subjects aged 15 years and above were sampled in the present study. There were 529 men and 485 women. They were drawn from different socioprofessional groups. Random selection of households within certain rural and urban localities of Jammu was employed to identify study participants. All individuals aged 15 years and above who were home at the time of interview were administered a questionnaire based on WHO-ILAR CCQ. All interviews were conducted during the day without any call backs. The questionnaire included questions in seven domains: pain, other symptoms, trauma, functional ability, coping health seeking behaviour and treatment received. In accordance with the WHO-ILAR CCQ the response to the questionnaire was considered positive when the respondent reported any current pain, tenderness, stiffness or swelling at that time. History of trauma as the cause of these complaints was excluded. Positive respondents were subjected to the clinical examination within one week of administration of the questionnaire.

LBA was operationally defined as pain in the lumbosacral region below 12th rib and above the gluteal folds with or without pain radiation to the legs.

STR included shoulder pain, tennis elbow, de Quervain's tenosynovitis, carpal tunnel syndrome,

fibromyalgia, trochantric, anserine and calcaneal bursitis. Neck pain and upper back pain were also included in this category.

OA of the knee and hand were diagnosed using the American College of Rheumatology (ACR) criteria (5,6).

RA was diagnosed using the American College of Rheumatology (ACR) criteria but serology and radiological changes were not taken into account (7). Gout was diagnosed using the working definition. A person was said to be the case of gout if he had two or more of the following i. e. painful or swollen first metatarsophlangeal joint, unilateral tarsal joint attack, presence of a tophus, and more than one attack of acute monoarthritis. A case of SLE was the one who had RA like joint involvement along with any three of the malar rash, discoid rash, photosensitivity, oral ulcers, pleural or pericardial rub, history of seizures or psychosis, and conjunctival pallor. Classification criteria put forth by European Spondyloarthropathy Study Group was used to define the cases of spondyloarthropathies (8). The cases where a definite diagnosis could not be made were designated unclassified rheumatic disorders.

Results

245 subjects (132 females and 113 males) had rheumatic diseases. Point prevalence of rheumatic diseases was 250.5/1000 in rural population and 231.4/1000 in the urban population. Point prevalence of rheumatic diseases increased with increasing age both for males and females. Rheumatic diseases were most common in manual workers and least common in sedentary workers. Total prevalence of rheumatic diseases worked out to be 241.6 per thousand, 21.36% of the males and 27.22% of the females were suffering from the rheumatic diseases.

Of 61 cases of OA, 39 were females and 22 were males ($p < 0.05$). Point prevalence increased with increasing age

($p < 0.05$). One-third of the population aged 65 and above was suffering from OA. Females were affected more often than males (1:1.7). The prevalence of knee OA was 42.4 per thousand.

In the present study, of 85 person with the LBA, 46 belonged to the rural areas. Women had point prevalence rates of 90.7 per 1000 and men had 77.5 per 1000, a difference which was not statistically significant. Highest rates were found in the manual workers. Rural-urban differences were there but the difference was not statistically significant.

Soft-tissue rheumatism prevalence was 35.9 per 1000 in males and 51.5 per 1000 in females (total 43.4 per thousand) The difference was not statistically significant. As for as age distribution is concerned, the maximum rate was in the age group of 35-44 years, a difference that was not statistically significant. Association of soft-tissue rheumatism with activity was statistically significant (more in manual workers than in sedentary or active workers). Similarly, higher rates were found in the rural population. There were five cases of FM (all females) in the present study.

Seven cases (one male and six females) of RA and two cases of gout were encountered in this study.. No case of SLE or spondyloarthropathy was detected. Forty-six cases had non-specific rheumatic complaints including arthralgias and these were kept under the category of 'unclassified rheumatic diseases'. Twenty-four cases had either shoulder (13) or knee (11) pain.

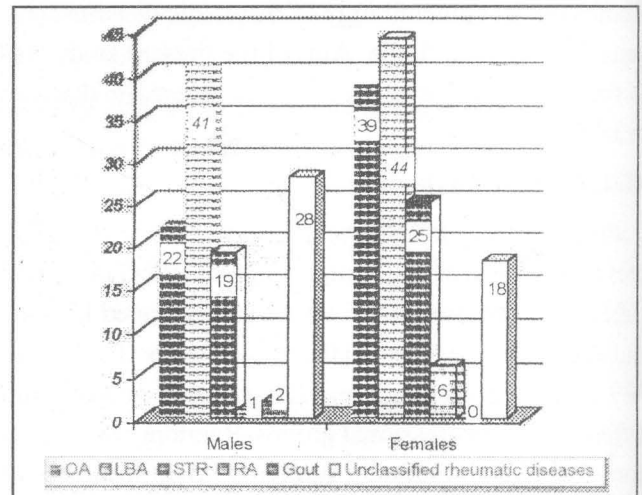
Table 1. Age-distribution of rheumatic diseases.

Age (in Years)	Males	Females	Total
15-24	10	9	19
25-34	21	26	47
35-44	22	21	43
45-54	20	30	50
55-64	22	27	49
65+	18	19	37

Table 2 Sex-distribution of rheumatic diseases.

Sex	Cases	Subjects	Prevalence
Males	113	529	213.6
Females	132	485	272.2
Total	245	1014	241.6

Fig. 2. Sex-distribution of individual rheumatic diseases.



Discussion

The burden of rheumatic disorders in the community is large not only in developed but also in developing countries. Sadly, this is in stark contrast to the attention paid to these disorders. In the present study, rheumatic disorders affected significant portion of adult population. Rural population had rates of rheumatic complaints no different than urban population. Osteoarthritis was the commonest articular ailment in the population. This is in agreement with the studies conducted in various parts of the world. (2) A WHO-ILAR COPCORD study conducted in rural population in Western India determined the OA prevalence to be 29% (9).

Rural and urban differences in the prevalence rates of osteoarthritis were not found. OA of the knee constituted a major part of the total disease burden due to OA. Age was a major risk factor for the OA. One third of the population above 65 was suffering from OA. There was a female preponderance in the prevalence of OA in our study. Females, in general, are more prone to OA. (10,11) The reason of female excess in knee OA partly is

mechanical, as women have to bend their knees more often while performing household work. Knee bending is a known risk factor for knee OA. (12) About half of the total cases of OA were housewives in our study.

LBA has been the commonest rheumatic complaints in all the communities of the world studied so far and same was the case in the present study. No gender differences were reported in this study. The prevalence of LBA increases with increasing age (13). This is attributed to the age-related degenerative changes in the spine. Prevalence rate of LBA in the age -group 45-54 years was twice that in the age-group 35-44 years in the present study. Manual workers had the maximum prevalence rates. It is due to higher incidence of degenerative changes and spondylolisthesis in persons engaged in heavy activities (14).

Soft-tissue rheumatism affected men as commonly as women and rural population was more prone to it. Manual and active workers were more prone to soft-tissue rheumatism. Fibromyalgia appears to be quite uncommon in the population studied.

Prevalence rates of RA in our study were similar to that indicated in the other Indian studies (15). Indians have prevalence rates of RA slightly less than the Caucasians. (16) There was female excess in RA in our study. Female excess in RA may have a hormonal basis (17).

In the present study, there were two cases of gout, and both were males. No case of spondyloarthropathies or SLE was detected as these cases have very low prevalence rates.

Rheumatic complaints are one of the most common afflictions in all the populations studied and are one of the leading cause of disability. This asks for the compelling need of larger epidemiological studies especially in developing countries.

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