WORLD JOURNAL OF PHARMACEUTICAL RESEARCH
SJIF Impact Factor 8.084
Volume 11, Issue 3, 2490-2494. Review Article ISSN 2277– 7105

RHEUMATOID ARTHRITIS: PREVALENCE IN TROPICAL REGION IN INDIA- A REVIEW ARTICLE

Nripen Kanjilal[1]* and Bijita Majumder[2]

[1]Assistant Professor Dept of Agadtantra J. B. Roy State Ayurvedic College and Hospital, Kolkata.

[2]Assistant Professor Dept of Samhita and Siddhant Kalawati Ayurvedic Medical College and Research Center, Gorha, Kasganj-Uttar Pradesh.

Article Received on
21 Jan. 2022,

Revised on 11 Feb. 2022,
Accepted on 01 March 2022

DOI: 10.20959/wjpr20223-26036

***Corresponding Author**
Dr. Nripen Kanjilal
Assistant Professor Dept of Agadtantra J. B. Roy State Ayurvedic College and Hospital, Kolkata.

ABSTRACT

The occurrence of rheumatoid arthritis was deliberate in the adult Indian population. Though it has been suggested that rheumatoid arthritis (RA) is prejudiced by type of weather and is less frequent in tropical climates, no reliable evidence has so far been forthcoming to confirm or rebut this. The occurrence of the illness is known to add to with age, and it would, therefore, be usual that it would be less recurrent in populations with a low life expectation. In one study As the first step, a house-to-house study of a rural populace near Delhi was conduct by two trained health workers. While doing survey study the target population comprise 44,551 adults (over 16 years old). The health workers recognized the possible cases of rheumatoid arthritis (RA) using a questionnaire. These cases were then further evaluated by the authors using the 1987 revised ARA criteria for the analysis of RA. A response rate of 89.5% was obtained and 3393 persons were scheduled as possible cases of RA by the health workers. The prevalence of RA in India is quite similar to that report from the urbanized countries. It is more from Philippines, china, Indonesia, and rural Africa. Hence an attempt has made to collect such type of studies in combined form in this article.

INTRODUCTION

Autoimmune Disorders are one of the most significant non-communicable disease and there are more than 80 autoimmune illness moving approximately 100 million people worldwide. In sequence about these disorders is extra from industrial countries than from budding and

under-developed countries. In India, the field of rheumatology is emerging and data on the different RA is sparse. Epidemiological studies have tinted RA as an important cause of mortality in developing countries. The prevalence of RA is estimated to be approximately 10% and pharmaco therapeutic success is attained in only few of the RA. Understanding of prevalence of RA-In one study by j.s. Lawrence et al as the first step, a house-to-house study of a rural populace near Delhi was conduct by two trained health workers. The target population comprise 44,551 adults (over 16 years old). The health workers identified the possible cases of rheumatoid arthritis (RA) using a questionnaire.[1-2] These cases were then further evaluated by the authors using the 1987 revised ARA criteria for the diagnosis of RA. A response rate of 89.5% was obtained and 3393 persons were listed as possible cases of RA by the health workers. Of these, 299 satisfied the revised ARA criteria for the diagnosis of RA, giving a prevalence of 0.75%. Projected to the total population, this would provide a total of about seven million patients in India. The tropical wet climate region of India refers to the two Islands **Andaman and Nicobar, Lakshadweep, Western Malabar region and south Assam**. The tropical wet region is the wettest in the country that maintains the humidity throughout the year due to the high amount of rainfall in the monsoon season.[3] The reported prevalence of RA in Indian population as per criteria of revised American College of Rheumatology (ACR) is 0.75%.[3] Many studies have reported that the prevalence of the MetS is significantly higher in patients with RA. Rheumatoid arthritis (RA) is an autoimmune disease with a worldwide prevalence of approximately 0.5% to 1% among adults. RA investigators have noted that prevalence in North America and Europe may be higher than prevalence in Asia. It is unclear if this geographical variability exists due to genetic, environmental or study design differences.

When RA is left uncontrolled, the RA patient may experience joint deterioration, severe disability, decreased quality of life, the onset of co morbidities and premature mortality.-The potential co morbidities include but are not limited to cardiovascular disease (CVD), cancer (specifically lymphoma and lympho-proliferative diseases, lung cancer and melanoma), infections, depression and gastrointestinal disease. In particular, CVD disproportionately affects RA patients. The cardiovascular (CV) risk score calculated in a recent study of traditional CV risk factors in Indian patients suggests that RA patients have a four-fold increase in CV risk compared to the general population from the same geographic location. However, no mortality studies of CV events among Indian RA patients are available. Since the 1960s, the gap in CVD mortality between RA patients and the general populations in

other countries has widened, as RA patients have remained at an increased risk compared with general populations. A standardized mortality ratio derived from a meta-analysis of North American and European studies suggests that mortality from CV events is 1.5-fold higher among RA patients than among the general population. In A Study the geographic coverage of the certain studies built-in both eastern and western coasts, the far north, and the far east of India. Fourteen calm data within three northern states (Jammu and Kashmir, Haryana, Uttar Pradesh) as well as the capital of New Delhi.[4-5] Five collected data within the western state of Maharashtra. In the south, three studies were conducted within Andhra Pradesh, Karnataka and Kerala. Only two studies took place in eastern states (Tamil Nadu and West Bengal). One study claimed nationwide coverage of India, while three did not report locations of data collection. Both urban and rural regions were represented. Another study reported were a prevalence of RA for total study populations, the prevalence ranged from 0.28% to 0.7%. In 1996, Chopra *et al*. conducted a study in the village of Bhigwan (Pune district, Maharashtra) using population surveys developed by the World Health Organization – International League of Associations for Rheumatology (WHO-ILAR) Community Oriented Program for Control of Rheumatic Diseases (COPCORD).They reported a prevalence of 0.51% (95% confidence interval for RA diagnosed with ACR criteria and a prevalence of 0.6% for RA diagnosed clinically among nearly 6000 men and women 16 years or older (2998 men; 3000 women).Using the COPCORD surveys within urban and rural localities of Jammu, a prevalence of 0.7% was found by Mahajan *et al*. In a third COPCORD study, Joshi *et al*. surveyed over 8000 adults 16 years or older (4135 women & 4010 men) living in the Pune metropolis in Maharashtra. They recorded a crude prevalence of 0.28% for RA diagnosed with ACR criteria and a crude prevalence of 0.45 for RA diagnosed clinically. In a fourth study, Malaviya *et al*. survey five villages in the Ballabhgarh township (Haryana) and reported a prevalence of 0.7% among nearly 40 000 men and women over 15 years of age. Only one study treatment a prevalence of RA also provided the seropositivity results for the RA cases it identified. In the study completed in Pune, 62% of the RA cases diagnosed clinically were seropositive for rheumatoid factor (RF) while 100% were seropositive for anti-cyclic citrullinated peptide (anti-CCP) antibody. Among studies reporting a prevalence of RA or rheumatic symptoms for specific populations of patients, the prevalence ranged from 1.4% to 5.2%. In the Pune study before referenced, there was a prevalence of 3.5% of RA among those with rheumatic musculo-skeletal disease (RMSD). If we look at some other studies In the Jammu study previously referenced, a prevalence of 2.9% was found among the inhabitants with rheumatic disorder In the eastern

state of West Bengal in 1991, Kar *et al*. a cross-sectional study of clinical evaluations for 4800 new patients of all ages admitted to a hospital with rheumatologic symptoms. A prevalence of 5.2% of RA among these patients was institute. In the last prevalence study, the population of the village of Kerala was survey after an epidemic of Chikungunya virus to gauge rheumatic-musculoskeletal (RMSK) pain. In this village, the prevalence of RMSK pain was 1.4% among 437 individuals (mean age: 48 years).[6-7] In this nationwide clinic study, 3000 doctors provide case records from over 11 900 clinic patients suffering from acute or chronic rheumatic circumstances. The occurrence among this patient population was 28%; however, the time period of data compilation was not provided.[8]

DISCUSSION

This study is a literature review of the epidemiology of RA in India. Co morbidities and extra-auricular manifestations, measures of useful abilities and superiority of life, and RA treatments were also included. Data were obtainable for all topics but were thin. The prevalence of RA was available from only four studies, ranging from 0.28% to 0.7%. In studies compare the country and urban areas of the Pune district of India to other countries, the urban prevalence (0.3%) and rural prevalence (0.5%) seemed within the range of rural (0.2%–0.5%) and urban areas of other countries (0.2%–0.5%), including China, After standardizing prevalence data for age and gender, the authors of the urban Pune study suggested that in India, RA may be more rampant in rural populations than in urban centres. The reasons for this divide remain unknown though the authors mentioned that micro trauma to musculoskeletal tissues from professional overuse and/or misuse can pose an issue to villagers. The author accepted that additional surveys in the same region must be completed in order for this urban/rural divide in occurrence to be validated.[9] Because the scores for the mental health domains from their study population of RA patients were superior than the scores for the physical domains, the authors suggested that the higher scores for the mental health domains were either evidence of strong family support and a strong social environment among patients or evidence of suppressed feelings among patients.[10]

CONCLUSION

This review brings thought to the weigh down of RA in India and the gaps in RA research that must be addressed.

REFERENCES

1. vina-Zubieta JA, Choi HK, Sadatsafavi M, Etminan M, Esdaile JM, Lacaille D Risk of cardiovascular mortality in patients with rheumatoid arthritis: a meta-analysis of observational studies. *Arthritis Rheum*, 2008; 59: 1690– 7.
2. Gonzalez A, Maradit Kremers H, Crowson CS *et al*. The widening mortality gap between rheumatoid arthritis patients and the general population. *Arthritis Rheum*, 2007; 56: 3583– 7.
3. Fatima F, Rao U, Moots R, Goodson N Raised traditional cardiovascular risk factors in Indians with rheumatoid arthritis. *Arthritis Rheum*, 2009; 60 (S10): 948.
4. Government of India 2011 Census. Government of India: Office of the Registrar General and Census Commissioner (Ministry of Home Affairs), 2011. Available from URL: http://censusindia.gov.in/default.aspx. Office of the Registrar General and Census Commissioner, New Delhi.
5. Chopra A, Patil J, Billempelly V, Relwani J, Tandle HS Prevalence of rheumatic diseases in a rural population in western India: a WHO-ILAR COPCORD Study. *J Assoc Physicians India*, 2001; 49: 240– 6.
6. Mahajan A, Jasrotia DS, Manhas AS, Jamwal SS Prevalence of major rheumatic disorders in Jammu. *JK Sci*, 2003; 5 (2): 63– 6.
7. Joshi VL, Chopra A Is there an urban-rural divide? Population surveys of rheumatic musculoskeletal disorders in the Pune region of India using the COPCORD Bhigwan model. *J Rheumatol*, 2009; 36: 614– 22.
8. Malaviya AN, Kapoor SK, Singh RR, Kumar A, Pande I Prevalence of rheumatoid arthritis in the adult Indian population. *Rheumatol Int*, 1993; 13, (4): 131– 4.
9. Kar N A short communication on occurrence of rheumatic diseases attending hospital. *Indian J Public Health*, 1994; 38 (3): 115– 8.
10. Mathew AJ, Goyal V, George E *et al*. Rheumatic-musculoskeletal pain and disorders in a naive group of individuals 15 months following a Chikungunya viral epidemic in south India: a population based observational study. *Int J Clin Pract*, 2011; 65: 1306– 12.