

A SURVEY ON RHEUMATOID ARTHRITIS

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Abstract

Rheumatoid Arthritis (RA) is an autoimmune disease that causes chronic inflammation of the joints; characterized by inflammation of the tissue around the joints as well as in other organs of the body. RA affects women's three times more promptly than men. In the present study the survey on RA was carried out in the Indore city (M.P.) from July 2010 to October 2010. The information obtained from doctors, patients, clinics, hospitals, book and internet was used for the survey purpose. The data obtained from them served as a basis of the study. Survey revealed that RA occurs at all stages of age but mostly developed in the age group between 40-50 years. It is incurable disease but 15% patients can get relief especially in the case of treatment start at earlier stage; whereas 85% of patients usually take life long treatment. As per survey result allopathy was found choice of therapy using immunosuppressant / DMARDs (Disease modifying antirheumatic drugs) with multivitamins as preferred drug combination. Whereas NSAIDS e.g. Diclofenac, Naproxen, Aspirin etc. and corticosteroids are used as first line drugs for the symptomatic relief of joint inflammation and pain in the case of RA. Survey also concluded that awareness of patient about disease therapy like early stage of treatment, regular exercise and physiotherapy increases the beneficial effects of treatment.

Key words: Survey, Rheumatoid Arthritis, Immunosuppressant, Joint Inflammation

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INTRODUCTION

Rheumatoid Arthritis is a chronic progressive inflammatory autoimmune disease mainly affecting peripheral synovial joints. It is a systemic disorder which causes not only chronic inflammation of the joints synovial proliferation and destruction of articular cartilage but also affects many other sites including the heart, blood vessels and skin [1]. Juvenile Rheumatoid Arthritis (JRA) is the most common rheumatologic disease in children (below 16

years) which is characterized by acute onset of fever and predominant involvement of knees and ankles [2]. It differs from adult rheumatoid arthritis because some RF-factor usually absent and antinuclear antibody seropositively is common. In children there is a 2:1 female predominance [3]. Rheumatoid Arthritis is strongly associated with the inherited tissue type major histocompatibility complex (MHC) antigen HLA-DR4, hence family history is an important risk factor. The causes of rheumatoid arthritis

are still incompletely known. Even though infectious agents such as viruses, bacteria (mycoplasma, parvovirus B19, rubella etc.) and fungi have been suspected not has been proven as the causes. Environmental factors e.g. smoking tobacco also seem to play some role in causing rheumatoid arthritis [4]. The nature of the autoimmune reaction (CD4+T-helper cell activation), the mediators of tissue injury (cytokines TNF- α and IL-1), genetic susceptibility (HLA-DR4 allele) and the arthritic antigen are key consideration in pathogenesis of disease [5]. The diagnosis will be based upon the pattern of symptoms i.e; morning stiffness (>1 hour), distribution of the inflamed joints and blood & x-ray findings. Primary symptoms of rheumatoid arthritis are the inflammation of synovial membrane. There is no known cure for rheumatoid arthritis; the goal of treatment in rheumatoid arthritis is to reduce joint inflammation, pain and stiffness, maximize joint function and prevent articular damage, joint destruction and deformity [6-10].

METHODOLOGY

All the information obtained from 12 doctors (practicing on rheumatology) around 100 patients, clinics, hospitals, medical colleges O.P.D. of Indore city, books and internet. First of all questionnaires were prepared for the survey. Next step was to take prior appointment from the doctors; that after doctors were visited at clinics and hospitals. Questionnaires were presented in front of them for their views. Prescriptions copies were also collected; data also collected from RA patients. Data collected from patients and from doctors (as answer of questionnaires) were scrutinized along with the information collected from internet and books. The

data were analyzed and result concluded statistically.

Questionnaires were prepared for patients of R.A.

- 1) Age of RA patient?
- 2) Duration of disease severity?
- 3) Duration of treatment?
- 4) Satisfaction status with the treatment?
- 5) Recovery status of treatment (e.g. Relief in pain, stiffness etc.)?
- 6) Side effects of treatment?
- 7) Effects of diet in disease condition?
- 8) Improvement status by physiotherapy / exercise employed in treatment?
- 9) Any previous accidental condition which cause bone injury?
- 10) Are the patients aware about treatment (Drug therapy)?
- 11) Initiation of pain; originates from one point or whole body?
- 12) Family history of disease?

Questionnaires were prepared for doctors (practicing on R.A.):

- 1) What are the suggested causes of disease?
- 2) In which age group the disease is found in majority?
- 3) In which sex group the disease is found in majority?
- 4) What is the first stage of treatment for Rheumatoid Arthritis?
- 5) What are the preferred approaches for diagnosis / test?
- 6) Can the patient get permanent relief after first stage of treatment?
- 7) What is the preferred choice of treatment in second stage of treatment?

- 8) What are the preferred drug combination therapy and its success percentage?
- 9) What are the side effects of treatment and their precaution?
- 10) Satisfaction status with the use of biological response modifiers like TNF- α and IL-1 inhibitors?
- 11) Uses of multivitamins are necessary?
- 12) Effects of weather (rainy/cold season) on disease symptoms?
- 13) Preferred physiotherapy/exercise which can helps in treatment?
- 14) Can disease transformation occur genetically as per their observation?
- 15) Any other disease which may develop with RA?
- 16) Can the patient get permanent relief by the treatment?

General questionnaires which were assured by doctors (practicing on R.A.) and patients of R.A.

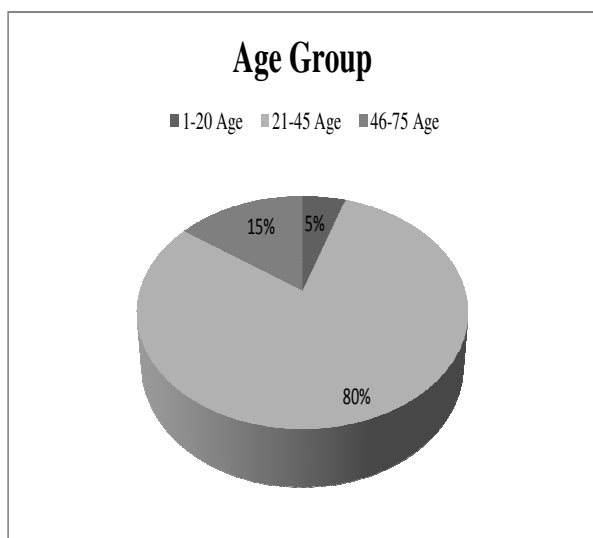


Figure 1. Percentage age group in which disease is promptly found

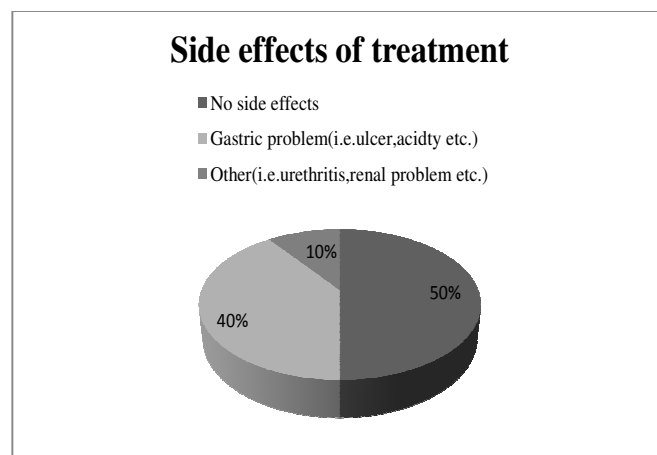


Figure 2. Percentage of side effects of treatment

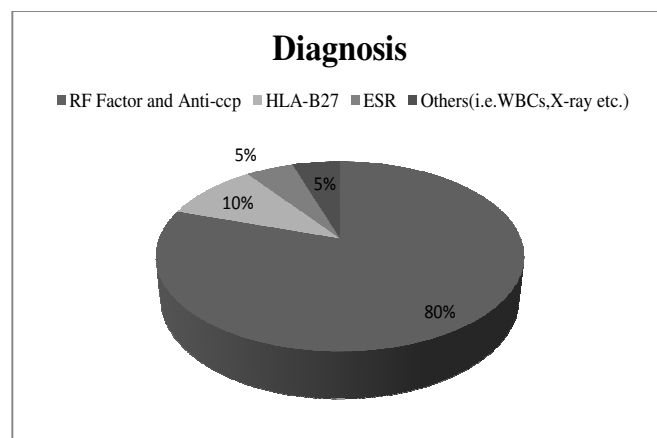


Figure 3. Preferred choice for diagnosis of disease

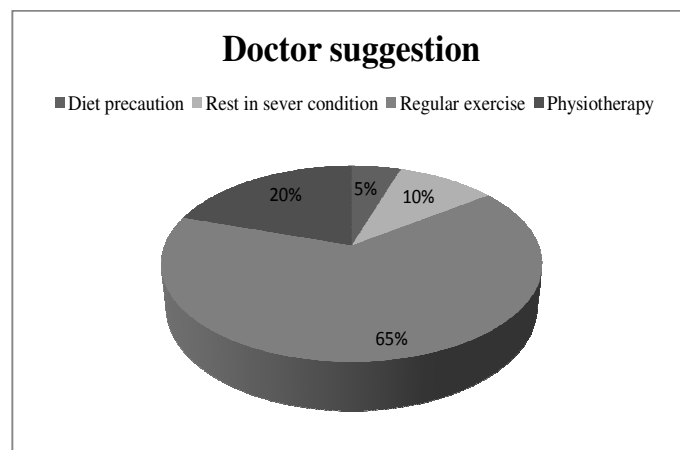


Figure 4. Doctor Suggestions other than treatment

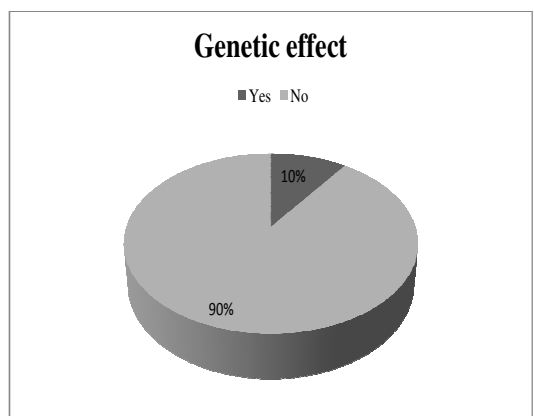


Figure 5. Percentage of genetic transmission of disease

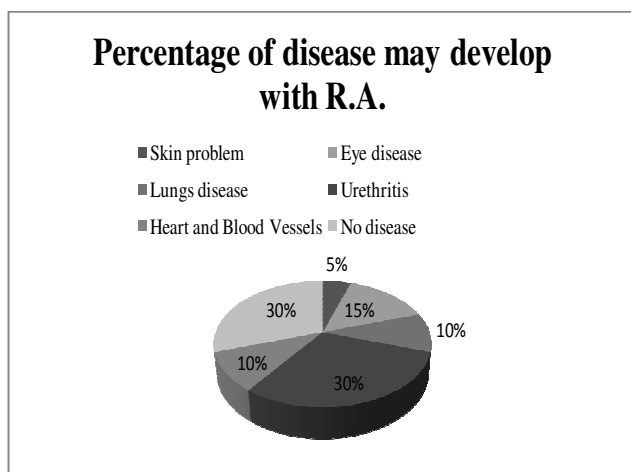


Figure 6. Percentage of other of diseases that may develop with R.A.

OUTCOMES OF SURVEY RESULT:

Analysis and compilation of data obtained from various sources:

Survey reports revealed that rheumatoid arthritis is a form of autoimmune disease, the causes of which are still unknown. R.A. promptly found in females: male in the ratios of 70:30 (Fig.1) may be due to hormonal effect. The potential of the

synovial inflammation to cause cartilage destruction and bone erosions and subsequent changes in joint integrity is the hall mark of the disease. One in three patients with rheumatoid arthritis is likely eventually to be severely disabled. In 85% patients pain originate from one joint. There is no permanent cure for disease but approximately 15% patient can get relief while 85% of patient taking treatment for more than 1 year; only 20% patient aware about treatment. In early stage of treatment patient get better relief. Survey revealed allopathy as the choice of treatment as compared to other therapy but other therapies i.e; physiotherapy and ayurveda are also have beneficial effects. DMARDs are choice of drug; in early and milder stage of treatment NSAIDs are also preferred but in advanced stage of treatment DMARDs are preferred because NSAIDs not arrest the disease progression. Biological response modifiers like TNF- α inhibitor and IL-1 inhibitor are used in combination with Methotrexate and other DMARDs in resistant cases to modify the course of treatment. Mainly combination therapy (methotrexate with suphasalazine or HCQ and sulphasalazine with leflunamide) are used for beneficial effect of treatment and reduces the side effects of treatment i.e; gastric acidity. In 65% patient regular exercise and in 20% patient physiotherapy was found to improve the effect of treatment (Fig.4). Calcium containing diet and multivitamins are gives with treatment to increase benefits specially to maintain calcium level for bone uniformity and growth. Gastric problem may generate as side effects of therapy (Fig. 2); which can be treat by using folic acid with drugs.

CONCLUSION

This survey revealed that disease was mostly found in old people; but now a days due to change in the life style and eating habits the disease frequency has increased in earlier age people and children's. RA predominantly occurs in females and also shows genetic influence in some patients that means it may be or not genetically inherited (**Fig. 5**).

Regular exercise is important to improve and maintain the joint mobility and making the joint muscle stronger but suggested the rest in severe condition. Cold and humid (rainy season) environment/weather may aggravate the symptoms of disease. Combination therapy has been used for better effect of treatment, among NSAIDs Ibuprofen, Diclofenac and Naproxen are preferred choice for joint inflammation and pain reduction but for arrest the progress of disease DMARDs are used. Prolong use of corticosteroids are not preferred; it is used initially when patients are in severe condition or not respond to NSAIDs. Among DMARDs Methotrexate are preferred initial second line drug while Hydroxychloroquine (HCQ), Sulfasalazine and Leflunamide are used over long periods for treatment according to patient selectivity and acceptance. Survey results concluded that early diagnosis of disease has beneficial for patients and may result in permanent relief. Better outcomes of rheumatoid arthritis treatment can be achieved by early stage of treatment, patient education empowerment, regular exercise, physiotherapy with the use of NSAIDs/ DMARDs.

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