



**CLINICAL PROFILE OF EXTRA-ARTICULAR MANIFESTATIONS AND COMORBIDITIES OF PATIENTS WITH RHEUMATOID ARTHRITIS**

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**KEYWORDS :**

Rheumatoid arthritis (RA) is an inflammatory autoimmune disease of the joints, with systemic involvement. Pathogenesis is still unknown but genetic predisposition and environmental factors can be considered as the contributors. The disease frequency is 0.5-1% and women are more affected. (1).

RA is a multisystem disorder characterized by various extra-articular manifestations and progressive joint deformities involving skin, lungs, heart, eyes, and other systems. Various studies have revealed a prevalence of 40% for extra-articular manifestations at any point during the course of illness. (2),(3).

RA has also long been tied to atherogenic risk, coronary artery disease, and systemic hypertension. Optimal management strategies of extra-articular manifestations are lacking in uniformity.

Timely screening and vigilance for these manifestations and comorbidities is essential for composite management of RA, and prevention of irreversible tissue damage.

**Primary**

To assess the prevalence and clinical profile of extra-articular manifestations among patients with rheumatoid arthritis.

**Secondary**

To study factors influencing the development of Extra-articular manifestations, such as Duration of the disease  
Presence of antibodies

Smoking

Adherence to treatment

Disease Severity and Comorbidities

**Inclusion Criteria**

Patients with RA as per ACR/EULAR Criteria 2010

Age more than 16 years

**Exclusion Criteria**

Patients meeting diagnostic criteria for SLE, MCTD, Scleroderma, Inflammatory Myositis, etc.

Patients not willing to participate in the study

**Study Design:**

Cross-sectional study

**Study Period:** June 2022 to June 2023

**Place Of Study:**

Kanachu institute of medical sciences Mangaluru

**Sample Size:** 260

Data was collected by using the proforma meeting the objectives of the study. The purpose of the study was explained to the patient and consent was taken.

A detailed clinical assessment and preliminary laboratory evaluation of the patient was be done at the presentation using study proforma

DAS 28 score was calculated at the point of examination. Information on the duration of illness, comorbidities, and extra-articular manifestations was collected.

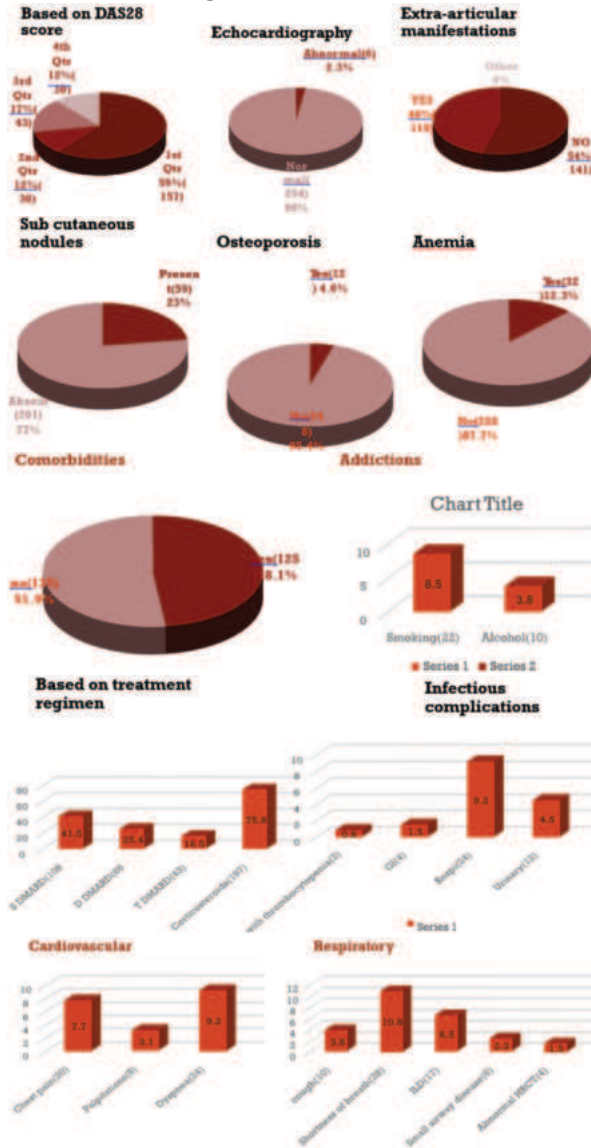
All patients were interviewed, detailed history was taken with respect to risk factors and detailed physical examination was carried out and appropriate investigations were done which includes CBC, Chest X-Ray, ESR, CRP, RA Factor, Anti CCP, ANA, c3, c4, ECG, LFT, RFT, PFT, HBA1C, Fasting lipid profile, Urine routine, and 2D echo.

A total of 260 participants were included in the present study of

them 86.5% were females, 13.5% were males.

Median time period since diagnosis was 5 years with 51.9% patients having received a diagnosis within 5 years respectively.

DAS28 score of remission or no disease activity was seen in 60% of patients, with 12% patients having high disease activity. The median DAS28 score was 2.3. 217 patients were on DMARDs (41.5% on single and 25.4% on double DMARDs) and 197 were on corticosteroids at the time of examination. 16.6% were not on any DMARDs.



Renal involvement is rare and iatrogenic finding with nephritic syndrome being the commonest followed by amyloidosis.

Pleural effusion is the most common finding in patients with RA

Peripheral neuropathy was found in very small proportions. This is a part of rheumatoid vasculitis syndrome.

**CONCLUSIONS:**

- Overall prevalence of Extra-articular manifestations was 45.8%(119 patients)
- Sub-cutaneous Nodules being the most common(22%), followed by Anemia of chronic disease(12.3%) and

ILD(6.5%)

- Overall prevalence of comorbidities was 48.1% or 125
- Diabetes mellitus was the most common (37.3%) among Comorbidities followed by Hypertension(30.8%) and CAD(13.8%)

**LIMITATIONS:**

Being a cross sectional study, the correlation between disease activity and comorbidities/EAM was not studied

**Recommendations:**

- Timely screening of RA for EAM's, especially respiratory and cardiovascular complications, is needed with an interdepartmental approach
- Studies assessing correlation between disease activity and presence of EAM's manifestations need to be conducted in similar setting
- Studies assessing correlation between control of RA disease activity and control of comorbidities such as DM, hypertension, need to be conducted.

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