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PREDICTORS OF REMISSION AND REMISSION RATES OF RHEUMATOID ARTHRITIS PATIENTS IN

HOSPITAL PAKAR UNIVERSITI SAINS MALAYSIA, KELANTAN FROM 2013 – 2024

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INTRODUCTION

Rheumatoid Arthritis (RA) is one of the most common type of inflammatory arthritis affecting estimated of 1% population[1]. It can cause joint damage and lead to poor functional status. Clinical remission should be targeted for every RA patient[2]. Data of RA in local studies in East Malaysia, specifically Kelantan, are limited.

METHODS

Study Design

Retrospective cohort study

Study Objective

To evaluate :

- Demography,
- Clinical characteristics,
- Remission rates
- Predictors of remissions

in RA patients attending Rheumatology clinic in HPUSM from 2013-2024.

Inclusion Criteria

RA patients fulfilled ACR/EULAR 2010 criteria

Age 18 years old above

Receiving standard care of treatment enrolled from single tertiary Rheumatology centre in Kelantan.

Data Collection

Using consecutive sampling method, data were collected by on-site clinician with standardized collecting sheet, including demography, clinical characteristics and remission rates. Remission was determined by disease activity score (DAS28) based on ESR or CRP[3].

Statistical Analysis

Simple Logistic Regression tests were used in the univariate analysis, and Multiple Logistic Regression tests were used to determine the associated factor.

RESULTS

A total of 148 RA patients were included in this study. Mean age was 56.3 ± 13.08. The female-to-male ratio was approximately 6:1, with female 85.8%.

Seropositive RA was predominant in this study with majority of 77.7%. Rheumatoid factor was positive in 73.0% of patients while anti-CCP was positive in 50.7% of patients. The overall remission rate was 62.8% by using DAS28.

CsDMARDs prescription was high, with all patients were prescribed. Among these, majority was on methotrexate (93.2%) and most of patients were using csDMARDs monotherapy (40.5%), closely followed by combination csDMARDs therapy (37.2%).

Lower likelihood for remission were small joints of lower limbs involvement (Adjusted OR=0.40, p<0.029), Sulfasalazine alone (Adjusted OR=0.365, p<0.022), csDMARDS with Glucorticoids combination (Adjusted OR=0.291, p<0.007), delayed presentation >12months (Adjusted OR=0.332, p<0.031) and young onset (20-39) of age of RA (Adjusted OR=0.330, p<0.008).

CONCLUSION

This study highlighted the negative predictors of remission in a single centre, shows overall more than half of patients recruited able to achieve remission with current approach of management and treatment regime.

By identifying predictors, our clinician can improve the diagnosis, management, and prevention of poor functional status as the effect of suboptimum management of RA. Future research with a larger, nationwide sample is warranted to validate these findings.

REFERENCES

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2. Smolen JS, Landewé RBM, Bijlsma JWJ, Burmester GR, Dougados M, Kerschbaumer A, et al. EULAR recommendations for the management of rheumatoid arthritis with synthetic and biological disease-modifying antirheumatic drugs: 2019 update. Ann Rheum Dis. 2020;79(6):S685–99.
3. Sun X, Li R, Cai Y, Al-Herz A, Lahiri M, Choudhury MR, et al. Clinical remission of rheumatoid arthritis in a multicenter real-world study in Asia-Pacific region. Lancet Reg Heal - West Pacific. 2021;15.

RESULTS

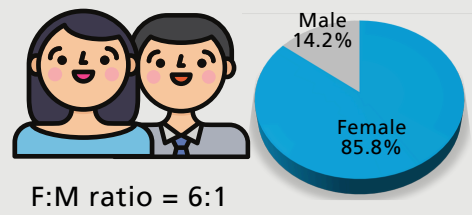
Total

148 patient enrolled.

Mean Age

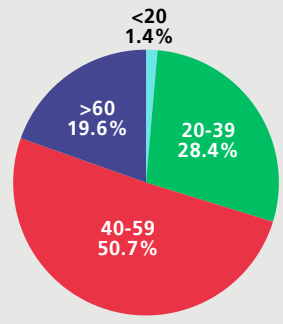
56.3 ± 13.08 years old

Gender

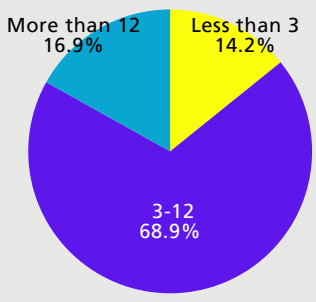


F:M ratio = 6:1

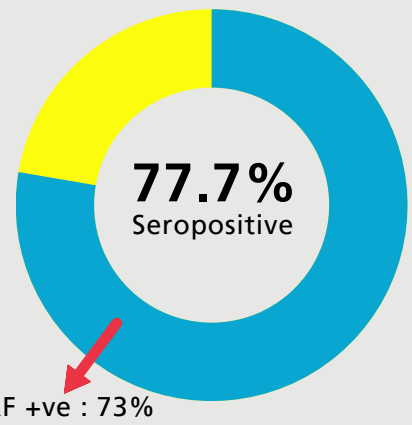
Onset Age of RA (Range: Years)



Disease Duration (Months)

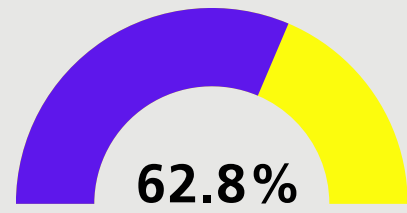


Serological Profile



RF +ve : 73%
Anti-CCP +ve: 50.7%

Disease Activity



Treatment Profile

CsDMARDs prescription **was high**, with **all patients were prescribed.**

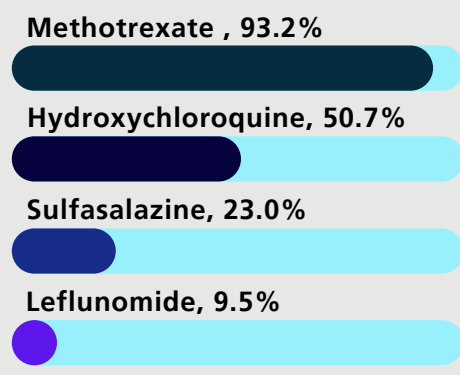


Table 1: Predictors of remission of RA according to multivariable logistic regression analysis. <0.05 is emboldened.

Parameters	B coefficient	Adjusted OR (95% CI)	Wald statistics (df)	*p*-value[b]
Disease duration before presentation > 12 months				
- No	0	1	4.657	
- Yes	-1.103	0.332 (0.122-0.904)	(1)	0.031
Age of onset (years) between range 20-39				
- No	0	1	7.099	
- Yes	-1.110	0.330 (0.146-0.746)	(1)	0.008
Small joints of lower limb involvement				
- No	0	1	4.774	
- Yes	-0.917	0.40 (0.176-0.910)	(1)	0.029
Current CSDMARDs (SSZ)				
- No	0	1	5.264	
- Yes	-1.009	0.365 (0.154-0.863)	(1)	0.022
Current treatment using csDMARDS with GC				
- No	0	1	7.291	
- Yes	-1.235	0.291 (0.119-0.713)	(1)	0.007

CI: Confidence Interval, [b]enter method for multiple logistic regression model applied.

DISCLOSURE

The investigators did not have conflict of interest with any party.