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AB0341 REASONS FOR DROP-OUT IN RHEUMATOLOGY SPECIALTY CARE OF ELDERLY RHEUMATOID ARTHRITIS PATIENTS

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Background: The difference between total and healthy life expectancies were 12.3 and 8.8 years for women and men respectively in 2016, in Japan. Rheumatoid arthritis (RA) not only reduces daily living activities due to joint symptoms but also deteriorates the life prognosis due to systemic inflammation. That is, patients with RA are short for both total and healthy life expectancy. In recent years, the need for rheumatologist to provide specialty medical care to elderly patients with RA has been expanding. However, some elderly patients drop out of specialty treatment and care. To date, there are little information concerning background of patients who drop out.

Objectives: To investigate reasons and characteristics of elderly RA patients who drop out from rheumatology specialty medical care.

Methods: Of RA patients who had been visited our rheumatology specialty facility in 2016, we defined as drop-out when the patients did not return to the hospital in 2017. We surveyed age, gender, disease activity, and reason for drop-out retrospectively from medical records and questionnaires.

Results: Of 2,092 patients with RA who visited to our department, 156 patients (7.5%, 95% confidential interval: 6.4 – 8.6%) dropped out. Among drop-out patients, 101 patients were older than 65. 37 patients (37%) dropped out due to comorbidities including death (group C), 32 (32%) patients were introduced certified rheumatologists near the patients' residences (group R). Twenty-two patients were due to unknown reasons, nine were due to remission, and one patient moved out to other area. Average age of both group C and R were eighty years old. Glucocorticoid user rate (C: 89%, R: 71%) and dose (C: 5.6 mg, R: 5.7 mg) were similar in the both two groups. Patients in group C showed less use of methotrexate (C: 19% vs R: 58%, $P < 0.01$) compared with group R patients. Simple disease activity index was similar, however, higher modified health assessment questionnaire was observed in group C patients (C: 1.13 vs R: 0.25, $p=0.01$).

Conclusion: Some elderly RA patients, especially may drop out from rheumatology specialty care due to comorbidities. Regional co-management should be constructed so that elderly patients could continue receiving RA specialized care.

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AB0342 DEPRESSION ON PATIENTS WITH RHEUMATOID ARTHRITIS

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Background: Rheumatoid arthritis (RA) is a chronic representative inflammatory autoimmune disease. The association of disease activity and pro-inflammatory cytokines with depression has not been sufficiently investigated.

Objectives: The aim of this study is to analyze the association between disease activity and depression using Patient Help Questionnaire (PHQ-9) in patients with rheumatoid arthritis (RA). We also examined the outcome of intervention on depression score and determined the prevalence of

depression and risk factors for depression and deterioration of depressive symptoms in RA patients.

Methods: 146 RA patients with a mean age of 51.3 ± 11.2 years were included in the study. Demographic and laboratory data were examined. Disease activity score 28-joint count C-reactive protein (DAS 28-CRP) was performed to assess disease activity of RA. PHQ-9 scores were collected at each clinic visit. Physicians assessed corresponding disease activity using Clinical Disease Activity Index (CDAI). Patients with at least moderate depression (PHQ-9 ≥ 10) were offered depression intervention, counseling or medications. PHQ-9 was re-administered after intervention.

Results: 119 of RA patients were females, the average disease duration was 6.8 ± 5.9 years. Depression was diagnosed in 38 of RA patients: 18 - mild, 13 - moderate and 7 - moderately severe. Severity of depression positively correlated with disease activity in RA patients ($p < 0.05$). RA patients with moderate/high CDAI had significantly higher PHQ-9 than those with low CDAI ($p < 0.001$). Of 7 patients who met criteria for depression intervention, 6 were treated and 1 - declined. With treatment 5 patients had improved PHQ-9 scores, 1 patient worsened, and 1 patient had no change in score. The risk of developing a depressive disorder is highest between 5 and 10 years of onset of the disease and depression is a better predictor of work disability than disease activity and response to treatment. Depression is associated with more pain, fatigue and impaired quality of life. Therefore, the risk to develop a depression is increased with impaired function as measured by the health assessment questionnaire (HAQ). Increased disease activity increases the risk for depression in RA. The severity of disease activity of RA, DAS 28-CRP [OR 1.75, 95% CI 1.08-2.64] and severity of fatigue (OR 1.32 95% CI 1.12-1.27) were associated with depression and deterioration of depressive symptoms in the multivariate analysis. Among the components of DAS 28-CRP, patient assessment for global health and abilities for daily performance were more related to depression. Depression unfavorably influences the response to therapy, the rate of remission is lower and the mortality is increased in RA patients. Taken together, this indicates that it is necessary to detect a depression in patients with RA as early as possible in order to initiate appropriate treatment of depression in such cases.

Conclusion: Our study shows depression in 19,18% of patients. Correlation between disease activity and depression score is found in RA patients. Depression intervention resulted in PHQ-9 improvement in some patients, supporting the benefit of depression screening and treatment in rheumatology practice. Depression was related with the level of fatigue and high RA disease activity, which was associated with impaired ability to perform activities of daily life. Strict control of fatigue and disease activity to improve one's capacity to perform daily life activities would be important to regulate depression. Depression is common and associated with worse outcomes among patients with RA.

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AB0343 ANTIRHEUMATIC THERAPY IS NOT ASSOCIATED WITH CHANGES IN CIRCULATING N-TERMINAL PRO-BRAIN NATRIURETIC PEPTIDE (NT-PROBNP) LEVELS IN PATIENTS WITH RHEUMATOID ARTHRITIS

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Background: Patients with rheumatoid arthritis (RA) are predisposed to impaired cardiac function and heart failure (HF). While the pathophysiology has not been fully elucidated yet, inflammation is suspected to play an important role. However, the impact of disease-modifying antirheumatic drugs on cardiac dysfunction in RA remains controversial. Although anti-inflammatory drugs might have protective effects, some of them, i.e. tumour necrosis factor inhibitors (anti-TNF), might also negatively influence cardiac function. Serum NT-proBNP (s-NT-proBNP) is used as a biomarker of cardiac function, and levels ≤ 125 ng/L with high probability exclude HF¹.

Objectives: To examine effects of methotrexate (MTX) and anti-TNF regimens on s-NT-proBNP in patients with active RA, and to assess associations between s-NT-proBNP and endothelial function (EndoF).