Conclusions: IT inflammation represents a peri-tendonitis and is present in anti-CCP +at risk individuals and RA patients where it is associated with MCPJ swelling and tenderness. IT inflammation can occur as the lone MRI abnormality in CCP +at risk individuals suggesting the interossei may be an early extra-capsular target in the development of RA.

REFERENCES:

- [1] Rowbotham, et al. Eur Radiol 2015.
- [2] Mangnus, et al. Arthritis Rheum 2016.

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FRI0048

MORTALITY AND MORBIDITY OF RHEUMATOID ARTHRITIS-ASSOCIATED LUNG DISEASE DURING A 10-YEAR PERIOD: A LONGITUDINAL COHORT STUDY OF 103 JAPANESE PATIENTS

S. Shimoyama, Y. Fujieda, M. Kato, K. Oku, T. Bohgaki, O. Amengual, S. Yasuda, T. Atsumi. *Department of Rheumatology, Endocrinology and Nephrology, Faculty of Medicine and Graduate School of Medicine, Hokkaido University, Sapporo-shi, Japan*

Background: Subclinical and overt lung diseases associated with rheumatoid arthritis (RA-LD) are present in 30%–50% of the patients. Early and effective intervention improved joint prognosis in RA. By contrast, lung complications are still the primary contributors to premature deaths in patients with RA. Lung complication in RA can be due to a variety of conditions. However, the individual mortality and progression of pulmonary manifestations have not been established.

Objectives: To clarify the prognostic factors of patients with RA-LD.

Methods: This cohort study comprised RA patients examined with lung high resolution CT (HRCT) scan regardless of respiratory symptoms from 2005 to 2009. Respiratory diagnoses were certified by pulmonologists. The patients were reassessed by one follow-up CT scan after 10 years. All patients were evaluated for the events defined as death, serious infections and others (admission due to bone fracture, and ischaemic heart disease) from 2005 to 2017. Mortality risks were assessed using Kaplan-Meier method.

Results: Clinical features of 103 (82 females) patients are shown in table 1. Thirty-one (30%) had RA-LD including 18 interstitial pneumonia and 13 bronchiolitis at the start of observation. Mean observation period was 110 months. During observation, patients without RA-LD (non RA-LD) never developed new lung complications. The 10 year survival rate (SR) was 92% (mortality rate was 1.3 per 100 patient-years) and the 10 year event free survival rate (EFS) 69% (event rate was 4.8 per 100 patient-years). SR in RA-LD was significantly low compared with non RA-LD ($p=0.008$) (figure 1). EFS in RA-LD was significantly lower than in non RA-LD ($p=0.03$). Types of lung complication didn't correlate with high mortality. The causes of death comprised infection (55%), malignant tumour (27%), interstitial pneumonia (9%), and the others (9%). The adverse events included infection (41%), malignant tumour (21%), bone fracture (15%), cardiac disease (10%), and severe drug eruption including Steven-Johnson syndrome (13%). Univariate analysis showed that infection ($p<0.001$, HR 26.7) and acute exacerbation of RA-LD ($p<0.001$, HR 57.3, 95% CI 13–287) were strong risk factors for deaths.

Abstract FRI0048 – Table 1. Characteristics of RA patients with and without LD at the start of observation

	RA-LD(n=31)	non RA-LD(n=72)
Female (%)	80	80
age(y)	74±10	68±13
age at RA diagnosis(y)	54±14	48±13
RF positive (n,%)	20(65)	48(67)
ACPA positive (n,%)	19(61)	45(63)
DAS28	4.3±1.4	4.4±1.5
Stage (n,%)	6 (20)	15(21)
Stage (n,%)	10(32)	21(29)
Stage (n,%)	5 (16)	16(22)
Stage (n,%)	10(32)	20(28)

Conclusions: RA-LD is a serious complication in RA, and related with a high mortality.

Disclosure of Interest: None declared

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FRI0049

SIGNIFICANT IMPROVEMENT OF RHEUMATOID ARTHRITIS (RA) OUTCOME WITH REPEATED SELF-ASSESSMENT APPLYING SMART SYSTEM OF DISEASE MANAGEMENT (SSDM) MOBILE TOOLS: A COHORT STUDY OF RA PATIENTS EMPOWERING

J. Yang¹, J. Huang², Y. Wang³, H. Wei⁴, R. Mu⁵, W. Fan⁶, H. Wang⁷, X. Duan⁸, X. Shi⁹, Y. Zhang¹⁰, F. He¹⁰, J. Xue¹¹, H. Li¹², J. Dong¹, Z. Zhang¹³, F. Zhang¹⁴, B. Wu¹⁵, H. Liu¹, F. Xiao¹⁶, H. Xiao¹⁷, B. Wu¹⁷, Y. Liu¹⁷, Y. Jia¹⁷, F. Zhang¹⁸.

¹Department of rheumatology, Central Hospital of MianYang, Sichuan, Mianyang;

²Department of Rheumatology and Immunology, The sixth Affiliated Hospital of Sun Yat-sen University, Guangzhou; ³Department of Rheumatology and Immunology, The First Affiliated Hospital of BaoTou Medical College, Baotou;

⁴Department of rheumatology, Northern Jiangsu People's Hospital, Yangzhou;

⁵Department of Rheumatology and Immunology, People's Hospital, Beijing

University Medical School, Beijing; ⁶Department of rheumatology, Central Hospital of XinXiang, Xingxiang;

⁷Department of Rheumatology and Immunology, JiaXing First Hospital, Zhejiang, Jiaxing;

⁸Department of rheumatology, The Second Affiliated Hospital of Nanchang University, Nanchang;

⁹Department of Rheumatology and Immunology, The First Affiliated Hospital of Henan University of Science and Technology, Luoyang;

¹⁰Department of rheumatology, Suining Central Hospital, Suining;

¹¹Department of Rheumatology and Immunology, The Second Affiliated Hospital of Zhejiang University School of Medicine, Hangzhou;

¹²Department of rheumatology, The Affiliated Hospital of Inner Mongolia Medical University, Hohhot;

¹³Department of Rheumatology and Immunology, Linyi people's Hospital, Linyi;

¹⁴Department of Rheumatology and Immunology, Hebei General Hospital, Shijiazhuang;

¹⁵Department of rheumatology, Chongqing Hospital of Traditional Chinese Medicine, Chongqing;

¹⁶Suzhou antiinflammatory research institute, Suzhou;

¹⁷Shanghai Gothic Internet Technology Co., Ltd., Shanghai;

¹⁸Department of Rheumatology and Immunology, Peking Union Medical College hospital, Beijing, China

Background: Treat-to-Target (T2T) strategy are critical for the treatment of RA, but the Chinese rheumatologists can hardly provide patients with a complete assessment in the clinic due to limited time. The SSDM includes interfaces of both physicians' and patients' application. After inputting lab test records, treatment regimens, and executing DAS28 assessment by patients themselves, all data can be synchronised automatically to the authorised physicians' mobile tool. The rheumatologists can adjust treatment regimens base on patients' profile. Our previous study showed that patients in China can master the application of SSDM for accurately evaluating DAS28 and health assessment questionnaire (HAQ) after training.

Objectives: The objective of this study is to explore the effectiveness of applying SSDM in improvement of disease activity after repeated self-assessment in Chinese RA patients.

Methods: Patients were trained to do DAS28 evaluation with SSDM and asked to repeat the self-assessment once a month. Descriptive statistics were performed