Skin	Sclerodactyly mRSS 11/51 Telangiectasia	Sclerodactyly Telangiectasia Leukocytoclastic Vasculitis	Sclerodactyly mRSS 2/51 Acroosteolysis Digital ulcers Telangiectasia ESR y CPR	Digital ulcers Telangiectasia
Acute-phase reactant				ESR
Capillaroscopy	ACTIVE	NONSPECIFIC (irregular enlargement Ramified dilated)	LATE	LATE (moderate avascular, disorganisation)
Treatment	MMF/ Macitentan	MMF CYC/ MMF CYC	NO/ CS AZA	HCQ/CS
sPAP systolic pulmonary artery pressure/mmHg	TAPSE	tricuspid annular plane systolic excursion	PCP pulmonary capillary pressure	TPG transpulmonary pressure gradient
TDG transpulmonary dyastolic pressure	NSIP	Nonspecific interstitial pneumonia	LIP	Lymphocytic interstitial pneumonia
UIP usual interstitial pneumonia	TRV	Tricuspid regurgitation peak velocity	AZA	Azathioprine

Conclusion: In our cohort the presence of positive ANCA was associated with renal vasculitis in one case. All patients with ANCA had vascular or interstitial pulmonary involvement, as well as other associated SADs. Further studies are needed to characterize the clinical associations of the presence of ANCA in SSC

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AB1272 TREATMENT OF RHEUMATOID ARTHRITIS WITH EXTENSION OF THE ANTI-TNF INTERDOSE INTERVALS. A MONOCENTRIC OFF-LABEL STUDY.

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Background: Since the advent of anti-TNFs a revolution has been established in the treatment of Rheumatoid Arthritis (RA).

Objectives: To evaluate the ability to safely extend the interdose intervals of the anti-TNFs in RA patients.

Methods: Eighty-six patients with early RA fulfilling the ACR/EULAR classification criteria were included and followed-up at predefined times. All patients were on conventional synthetic disease-modifying antirheumatic drugs (csDMARDs) plus an anti-TNF. At every visit, the disease activity score using the 28-joint count (DAS-28) as well as all the drug-related laboratory parameters were recorded. Clinical remission was defined as DAS-28 <2.6 for ≥12 months. RA patients in clinical remission had the possibility to extend interdose intervals.

Results: A total number of 57 females and 29 males (mean age: 62.7 ±4.1 years; disease duration: 14.9±2.4 months) were included. 76 patients were in clinical remission, while 10 were in low disease activity. From those in clinical remission, 40 patients received adalimumab (ADA), 23 etanercept (ETN) and 13 golimumab (GOL). Regarding the extension of the interdose intervals, 29 patients were on ADA every 21 days, 11 every 30 days. Regarding the extension of the interdose intervals in patients receiving ETN: 15 patients were on ETN every 10 days, 8 every 15 days. Finally, 6 patients were on GOL at a dose interval of 35 days, 4 every 40 days, 3 every 45 days. Young, female and seronegative patients treated early with an anti-TNF had more chances of extending the interdose interval.

Conclusion: We found that the extension of the interdose intervals of the anti-TNFs is a feasible option in early RA patients and it reflects not only significant clinical benefits for the patient but also economic benefits for the healthcare systems.

Disclosure of Interests: None declared

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AB1273 ESTABLISHMENT OF A PROSPECTIVE COHORT FOR RHEUMATOID ARTHRITIS PATIENTS WITH INTERSTITIAL LUNG DISEASE: COMPARISON OF BASELINE CHARACTERISTICS BETWEEN RHEUMATOID ARTHRITIS PATIENT WITH OR WITHOUT INTERSTITIAL LUNG DISEASE

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Background: Rheumatoid arthritis-associated interstitial lung disease (RA-ILD) has a clinical significance of high mortality rate in patients with RA. Hence, we established a multidisciplinary prospective single center cohort for RA-ILD patients with multidisciplinary collaboration called the HUMANISM. Patients with RA who have checked a chest computed tomography (CT) scan within previous 2 years were eligible for the enrollment, and they were classified according to the presence of ILD by expert radiologists. All RA patients were assessed with various outcomes of RA, and reviewed for treatment pattern of medications annually.

Objectives: To introduce a prospective, non-interventional cohort of RA-ILD patients, HUMANISM cohort and to compare baseline characteristics and treatment patterns between RA patients according to the presence of ILD using the enrollment data of this prospective cohort.

Methods: We compared the baseline characteristics between RA patients with and without ILD using the Chi-square test and Student's t-test. For RA-ILD patients, we described the ILD patterns that could be identified in high-resolution CT (HRCT) to determine their dominant radiological characteristics.

Figure 1. Patient selection flow of HUMANISM cohort

Figure 1

Results: A total of 74 RA-ILD patients and 239 RA patients without ILD were consecutively enrolled between May 2017 and October 2018. At the baseline, RA-ILD patients showed higher proportion of male patients and older age compared to RA patients without ILD. They also showed higher RF positivity than those without ILD. RA-ILD patients also have higher disease activity measured with DAS28. In the treatment, oral glucocorticoids (OC) are used in higher rate and higher doses in RA-ILD patients than those without ILD. Methotrexate (MTX) use rate was higher in RA without ILD patients compared to RA-ILD patients, but there was no difference in the prevalence of biological DMARDs. In HRCT findings of RA-ILD patients, usual interstitial pneumonia (UIP) and non-specific interstitial pneumonia (NSIP) dominant patterns were common, followed by organizing pneumonia (OP), and overlapping patterns combined with NSIP or UIP.

Conclusion: We found that RA-ILD patients showed higher disease activity, male predominance and older age than those without ILD. Treatment patterns were different in the use of MTX or OCs. In our HUMANISM cohort, common HRCT findings of RA-ILD patients were UIP and NSIP.

Abstract AB1273 Table 1. Baseline characteristics of RA patients with and without ILD in HUMANISM cohort

Variables	RA-ILD (n=74)		RA without ILD (n=239)		P
Sex (female)	46	(62.2)	202	(84.5)	<0.001
Age	65.4	± 10.9	58.9	± 10.3	<0.001
Disease duration	8.7	± 7.6	11.3	± 7.8	0.011
DAS28-ESR	3.7	± 1.4	3.3	± 1.2	0.021
DAS28-CRP	2.6	± 1.1	2.3	± 0.9	0.041
RF (+)	67	(90.5)	191	(79.9)	0.036
ACPA (+)	66	(89.2)	213	(89.1)	0.189
Medications					
MTX	39	(52.7)	193	(80.8)	<0.001
Biologic DMARDs	12	(16.2)	50	(20.9)	0.302
OC	43	(58.1)	68	(28.5)	<0.001
OC dose ^a , mg/day	4.2	± 2.7	2.6	± 1.7	<0.001
HRCT findings					
UIP	29	(39.2)			
NSIP	29	(39.2)			
OP	7	(9.5)			
Overlapping of HRCT patterns	6	(8.1)			
Others	3	(4.0)			

^a Prescriptions of regular oral glucocorticoids were considered in the calculation and the prednisone-equivalent dose was presented

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AB1274 OF 60 PUBLICATIONS REFERRING TO BIG DATA IN RHEUMATIC AND MUSCULOSKELETAL DISEASES, 33 APPLIED ARTIFICIAL INTELLIGENCE STATISTICAL TECHNIQUES: A SYSTEMATIC LITERATURE REVIEW INFORMING A EULAR TASKFORCE

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Background: Big data are defined as data sets that are too large or complex for traditional data-processing application software to adequately deal with. Artificial Intelligence (AI) includes various statistical techniques which can deal with big data. The current use of these concepts in publications related to RMDs is unknown.

Objectives: To assess the current use of big data and AI in the field of RMDs.

Methods: A systematic literature review (SLR) was performed in PubMed MEDLINE in November 2018, with key words referring to ("big data"[All Fields] OR "Artificial Intelligence"[Majr]) and RMDs. All original reports published in English and referring to big data in RMDs were analyzed. We collected general information on the paper (including year of publication and impact factor of the journal, and country of the first author), and information on the rheumatic disease, the number of data analyzed and the statistical methods used. The analysis was descriptive.

Results: Of 648 articles, 60 met the inclusion criteria. Among them, 34 (57%) were observational studies including 22 (37%) cohort studies, 3 (5%) were experimental studies, 7 (12%) were literature reviews or literature data mining and 16 (27%) were general reviews which provided no original data. Among the 44 original papers, the mean year of publication was 2015 (SD=5.0, range 1991-2018), with 38 articles (86%) published during the last 5 years. The mean impact factor was 5.1 (SD=8.5, range 1.6-41.9). The mean number of data was 1.4 million (SD=4.6 million, range 212 MRIs – 25 million units of observation). Many articles were written by European (N=16, 36%) or US (N=15, 34%) authors. Most

papers were on inflammatory joint diseases (N=17, 37%) (Figure 1); 7 (16%) were applied to -omics and 9 (20%) to imaging. Statistical methods were based on AI in 33 papers (75% of 44), specifically Machine Learning (N=28 articles, 64%) (Figure 2), with varied methods applied (mostly different kinds of Artificial Neural Networks, N=17).

Conclusion: Big data is an emergent area in the field of RMDs, and we found 60 papers on various diseases and with diverse applications of "big data". Most of these papers were published very recently, and some in high impact factor journals, indicating the interest of researchers for this field. Overall, 33 publications mentioned AI techniques to deal with big data, whereas 11 used usual statistical methods. The heterogeneity of methods used indicates the need for further research in this area, and for collaboration with data scientist specialized in big data, particularly to determine which statistical methods (traditional or AI) should be used. These findings will inform a EULAR taskforce on big data in RMDs.

Figure 1: Description of the RMDs

FIGURE 2: DESCRIPTION OF THE MACHINE LEARNING TECHNIQUES

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AB1275 COMPARATIVE ANALYSIS OF LOCAL COMPLICATIONS OF HIP AND KNEE ARTHROPLASTY IN PATIENTS WITH RHEUMATOID ARTHRITIS AND OSTEOARTHRITIS

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Background: Surgical treatment of patients with rheumatoid arthritis (RA) is associated with an increased risk of complications. It can be caused by: an inflammatory process, the osteoporosis, the reduced physical activity, the severity of functional impairment, long-term glucocorticoid therapy, biologic and disease-modifying antirheumatic drugs. All of the above reasons provide elongated wound healing period, the development of infectious complications, increased risk of periprosthetic fractures.

Objectives: to provide a comparative analysis of local complications of hip and knee arthroplasty in RA and osteoarthritis (OA) patients.

Methods: We analyzed 2142 operations: hip (n = 1177) and knee (n = 965) replacement, which were performed to patients with RA and OA between 1998 and 2018.