## **Poster Abstracts Part B**

Clinical characteristics of Chinese patients with systemic sclerosis positive for anti-nucleolar organizer region 90 (NOR90) antibodies

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**Background:** Among all the autoantibodies associated with systemic sclerosis (SSc), the anti-Nucleolar Organizer Region 90 antibodies (NOR90) have a quite low prevalence, approximately 3.3% according to the EUSTAR database. Thus, the clinical features of NOR90-positive SSc patients remain poorly defined, especially in Asian population.

**Method:** This prospective study included NOR90-positive patients who fulfill the criteria for SSc (EULAR/ACR 2013) enrolled between January 2019 and December 2023 in our center. Their serological profile and clinical manifestations were analyzed at baseline.

Results: The study included 11 patients (100% female, mean age 60.7 ± 17.8 years). Of these 11 patients, 10 (90.9%) tested positive for at least one additional SSc-related antibodies: 5/11 (45.6%) for anti-Ro52, 3/11 (27.3%) for anti-centromere, anti-topoisomerase and anti-U1RNP. 2/11 (18.2%) for anti-RNA Polymerase III and anti-Ku, 1/11 (9.1%) for anti-Th/To and anti-Fibrillarin. Of these patients, 8/11 (72.7%) were diagnosed with limited cutaneous SSc, 2/11 (18.2%) with diffuse cutaneous SSc, and one patient was classified as systemic sclerosis sine scleroderma. Raynaud phenomenon (RP) was experienced by 90.9% of the patients. SSc disease duration from RP onset and non-RP symptom onset was 1 (0.2; 2) year and 0.5 (0.25; 3.0) year, respectively. The diagnosis of pulmonary arterial hypertension was made by the measurement of rightheart catheterization or by echocardiography with an estimated systolic pulmonary arterial pressure >40 mmHg. Pulmonary arterial hypertension was observed in 5/11 (45.5%) patients. High resolution computed tomography (HRCT) revealed interstitial lung disease in 7/11 (63.3%) patients.

**Conclusion:** The detection of NOR90 frequently coincided with other SSc-related autoantibodies. The clinical manifestations of NOR90-positive SSc patients were relatively heterogeneous due to the complexity of autoantibody composition. The prevalence of pulmonary hypertension and interstitial lung disease among these patients were considerable and needs further confirmation in larger cohorts.

Patient	Sex	NOR90	ATA	ACA	RNAP III	Fibrillarin	Th/To	Ku	Ro52	U1RNF
1	F	+	+							
2	F	+							+	+
3	F	+	+					+		
4	F	+						+		
5	F	+							+	+
6	F	+					+			
7	F	+		+						+
8	F	+		+		+			+	
9	F	+			+				+	
10	F	+	+	+	+				+	
11	F	+								
n%,N=11		100	27.3	27.3	18.2	9.1	9.1	18.2	45.6	27.3

TABLE 1 Serologic tests of NOR90-positive SSc patients.

Abbreviations: NOR90, anti-Nucleolar Organizer Region 90 antibodies; ATA/Scl70, anti-topoisomerase I antibodies; ACA, anticentromere antibodies; RNAP III, RNA Polymerase III; U1-RNP, anti-U1 ribonucleoprotein antibodies; Th/To, anti-Th/To ribonucleoprotein antibodies; Ku, antibodies against a DNA-binding nuclear protein complex composed of 2 polypeptides of 86 and 70 kDa; Ro52, Anti-Ro52 antibodies; Fibrillarin, Anti-fibrillarin antibodies.

# Efficacy of olokizumab in comorbid depressive disorder in patients with rheumatoid arthritis

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**Background:** Interleukin (IL)-6 plays an important role in the pathogenesis of depression in patients with rheumatoid arthritis, and IL-6 inhibitors used to treat RA patients may have antidepressant effects. The objective was to evaluate the effectiveness of IL-6 inhibitor olokizumab (OKZ) in reducing the depression in patients with moderate/high RA activity.

Material and Methods: To date, 119 RA patients have been included, of which 98 (82.3%) are women, with an average age of  $48.3 \pm 12.5$  years; with a predominant high activity of RA according to DAS28 (CRP) (89.9%), SDAI (87.4%) and CDAI (84.0%) indices

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have been thoroughly investigated. A comprehensive evaluation based on detailed history-taking and physical examination can greatly influence treatment outcomes.

### Systemic lupus erythematosus in Sarawak General Hospital: A 10-year update

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**Background/Purpose:** Systemic lupus erythematosus (SLE) is a complex autoimmune disease with heterogeneous clinical presentation. We published the Sarawak Lupus Cohort in 2014. Since then there have been many advances in SLE diagnosis and management. We aimed to examine the clinical manifestations and gender differences of an updated SLE cohort in Sarawak General Hospital.

**Methods:** We collected demographics and clinical manifestation data in this prospective observational study from July 2018 until December 2023. All patients fulfilled the 2012 Systemic Lupus Collaborating Clinics (SLICC) Classification Criteria for SLE. Statistical analysis was performed using SPSS, with means  $\pm$  SD, Chi-Square or Fisher's exact test. A *p*-value<0.05 is considered significant.

Results: There were 637 patients in our cohort, with 567 (89%) women and 70 (11%) men. The mean age at SLE diagnosis was 31.17 ±13.6 years. There were 234 (36.7%) Chinese, 224 (35.2%) Malay, 107 (16.8%) Iban, and 58 (9.1%) Bidavuh patients. Common SLE clinical manifestations were acute cutaneous lupus in 420 (65.9%), followed by renal in 309 (48.5%) and leucopenia or lymphopenia in 307 (48.2%) patients. The common immunological SLE manifestations were antinuclear antibody (ANA) in 619 (97.2%) and anti-double stranded DNA (anti-dsDNA) in 366 (57.5%) patients. 285 (44.7%) patients had severe disease at presentation. There were 217 (34.1%) patients with a score of SLE Damage Index (SDI) >1, indicating the presence of at least one item of damage. There were 70 (11%) deaths in this cohort. The notable differences between men and women with SLE was a statistically significant higher percentage of men had renal manifestation (men 41 (58.6%) vs women 268 (47.3%), p = 0.04) and serositis (men 18 (25.7%) vs women 91 (16.0%), p = 0.04). There were more women than men with oral ulcers (women 220 (38.8%) vs men 15 (21.4%), p=0.004) and alopecia (women 278 (49.0%) vs men 13 (18.6%), p < 0.001). More men had severe disease at presentation (men 42 (60%) vs women 243 (42.9%), p=0.006). Among patients with SDI>1 (n = 217), there were more men with end-stage renal failure (ESRF) (men 7 (28%) vs women 11 (5.7%), p=0.002), myocardial infarction (men 2 (8%) vs women (0), p=0.01) and extensive skin scarring (men 3 (12%) vs women 4 (2.1%), p=0.04). There was no gender difference in death in this cohort.

**Conclusion:** This updated SLE cohort showed acute cutaneous lupus, renal, ANA and anti-dsDNA as the most common SLE manifestations.

Men had more severe disease at presentation, with more renal and serositis SLE manifestation. Men had more ESRF, myocardial infarc-

tion and extensive skin scarring in the SLE Damage Index.

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#### The changing landscape of telemedicine in Sarawak

**Rheumatic Diseases** 

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**Background/Purpose:** Healthcare providers in remote areas or in areas with limited rheumatologists depend on telemedicine for rheumatology consultations and shared patient management. The COVID-19 pandemic presented an increased challenge, where even previously accessible patients were rendered inaccessible due to travel restrictions. This required all of us to utilize available technology to provide comprehensive rheumatological management, and also presented a unique opportunity for a shift in telemedicine methods. One recently developed telemedicine method was conducting virtual rheumatology meetings with the district hospitals in Sarawak for rheumatology case discussions. We aimed to explore the various methods of telemedicine between district hospitals and rheumatologists and the participants' perception of the benefits of attending the virtual meetings.

**Methods:** We specifically examined the utilization of telemedicine in Rheumatology consultations and shared patient management in the Sarawak district hospitals. Regular virtual rheumatology interhospital meetings were started in August 2022 and a survey was conducted in January 2024 among the participants.

**Results:** When rheumatology services were first established in Sarawak in 2006, rheumatology consultatons via telemedicine were conducted using phone calls and emails. In 2009, the era of smartphones added instant messaging with attached photos of physical findings and laboratory results. During the COVID-19 pandemic, we increasingly relied on these methods for consultations.

Subsequently, virtual meeting platforms became increasingly. In August 2022 we started 2-monthly virtual rheumatology meetings via Google Meet. The objectives of the programme were to discuss challenging rheumatology cases and to expand rheumatology knowledge among participants. The case discussions between the participants from the various district hospitals and the panel of rheumatologists also allowed for a wider audience simultaneously.

We conducted a survey of 29 participants in a virtual meeting in January 2024, which comprised of 19 medical officers and 10 physicians. 11 participants (37.9%) attended for the first time, 11 participants (37.9%) have attended >3 times, while 7 participants (24.1%) have attended 1 or 2 times previously. 3 participants (10.3%) described the virtual meeting as having 'some benefit' in increasing their rheumatology knowledge, while 26 participants (89.7%) described the sessions as 'very beneficial'. All participants agreed that