**Background:** The prevalence of the musculoskeletal immune-related adverse events (irAEs) is probably underestimated, as most studies report only severe side effects. The largest prospective study with systematic monitoring by a rheumatologist, for musculoskeletal irAEs (mirAEs), was reported for patients with SLE treated with an anti-CD19 CAR T-cell therapy.

**Objectives:** The main objective was to describe each type of musculoskeletal irAEs: prevalence, clinical features, treatment regimen, ICI drug, time of occurrence and management of musculoskeletal irAEs. The secondary objectives were to describe irAE course and to investigate tumor response at 3 months after introduction of ICI according to irAEs’grade, clinical features, pain patterns and the treatments used to manage musculoskeletal irAEs.

**Methods:** We conducted a retrospective study among patients who received ICI from 07/2014 to 05/2020 at the medical oncology department of the Institut Paoli-Calmettes, Marseille, France. All medical files were systematically reviewed by a rheumatologist who collected clinical features, time of occurrence, treatment regimen, irAE management, course, outcomes and tumor response 3 months after introduction of ICI.

**Results:** In our cohort of 927 patients treated with ICI for a solid tumor, 118 patients (12.7%) presented a musculoskeletal irAE. Their median age was 66.5, 61% were male, and they mainly had a lung (576%) or urological cancer (27%). The most frequently involved ICI was an anti PD-1. Arthralgias and myalgias were the most frequent musculoskeletal irAEs (76.3%) and inflammatory rheumatic features were reported in 36 patients (30.5%) with elevated acute phase reactants and negative immunological markers. The median time of onset was 2 months (IC 95% 1.8; 2.7). Musculoskeletal irAEs were mainly mild and no deaths were related. Painkillers were the most widely used treatments (86.4%). Systemic corticosteroids were used in 38 patients (32.2%) with a mean dose of 43 ± 35 milligrams/day. Among the inflammatory rheumatic features, 20 (55.5%) were treated with systemic corticosteroids and 8 with csDMARDs (16.7%). bDMARDs were not used in our cohort. Musculoskeletal irAEs resulted in discontinuation of the responsible ICI in 23 patients (19.5%). The majority of musculoskeletal irAEs (79.7%) resolved within a median time of 3 months (IC 95% 2.2; 4.0). Tumor response at 3 months did not differ according to musculoskeletal irAE severity, type of manifestation (arthralgias/myalgias versus inflammatory rheumatic features), pain patterns (mechanical versus inflammatory) or irAE treatments.

**Conclusion:** Our single-center cohort is the largest to our knowledge to describe all musculoskeletal irAEs in patients treated with ICI without focusing on severe or non-inflammatory manifestations. These musculoskeletal irAEs are frequent, mostly mild and well tolerated, resolving and allowing possible continuation of ICI treatment. Collaboration between oncologists and rheumatologists should be further encouraged to determine whether all musculoskeletal irAEs, even non-severe and non-inflammatory ones, are associated with a good tumor response to ICI.

**REFERENCES:**


**Disclosure of Interests:** None declared

**DOI:** 10.1136/annrheumdis-2022-eular.252

---

**Recent novelties in SLE/Sjogren and APS?**

**OPO280**

**WEANING OF MAINTENANCE IMMUNOSUPPRESSIVE THERAPY IN LUPUS NEPHRITIS (WIN-LUPUS): A MULTICENTER RANDOMIZED CONTROLLED TRIAL.**

N. Jourde-Chiche1, N. Costedoat-Chalumeau2, K. Baumstark2, L. Bouillert2, S. Burtey1, V. Caudweil3, L. Chiche4, L. Couzi4, C. Deligny4, B. Dusso4, S. Faguer2, P. Gobert4, G. Gondran1, A. Huard2, A. Hummel2, E. Kalbach2, A. Karras4, M. Lambert7, V. Le Guern5, S. Loubiere3, H. Maillard6, F. Mauris1, M. Pha1, V. Queyral5, F. Sarrot-Reynaud5, D. Verhelst21, E. Hachulla17, Z. Amoura18, E. Daugas19 on behalf of Groupe Cooperatif sur le Lupus Néphritique, 1Aix-Marseille University, Nephrology, Marseille, France; 2AP-HP, Centre de Reference Maladies Rares Parissix, Paris, France; 3Aix-Marseille University, Laboratoire de Sante Publique, Marseille, France; 4CHU de Grenoble, Internal Medicine, La Tronche, France; 5CHU Sud Francilien, Nephrology, Corbeil-Essonnes, France; 6Hopital Européen Marseille, Internal Medicine, Marseille, France; 7CHU de Bordeaux, Nephrology, Bordeaux, France; 8CHU de Fort-de-France, Internal Medicine, Fort-de-France, France; 9CHU de Toulouse, Nephrology, Toulouse, France; 10CHU de Grenoble, Internal Medicine, Grenoble, France; 11CHU de Limoges, Internal Medicine, Limoges, France; 12AP-HP, Nephrology, Paris, France; 13CHU de Lyon, Nephrology, Lyon, France; 14AP-HP, Nephrology, Paris, France; 15CHU de Lille, Internal Medicine, Lille, France; 16AP-HP, Internal Medicine, Paris, France; 17Hopital Robert Schuman, Internal Medicine, Nancy, France; 18Hopital Saint-Louis, Nephrology, Paris, France; 19AP-HP, Internal Medicine, Paris, France; 20IHU de Nice, Rheumatology, Nice, France; 21CHU de Grenoble, Internal Medicine, Grenoble, France; 22CHU d’Avignon, Nephrology, Avignon, France; 23Universite de Paris, Nephrology, Paris, France
Background: Lupus nephritis (LN) is a frequent complication of systemic lupus erythematosus (SLE). Severe (proliferative) forms of LN are treated with an immunosuppressive therapy (IST), followed by a maintenance IST, to target remission and avoid relapses. The optimal duration of maintenance IST for proliferative LN is unknown.

Objectives: The WIN-Lupus trial tested whether IST discontinuation after 2-3 years in proliferative LN was non-inferior to IST continuation for 2 more years.

Methods: WIN-Lupus is an investigator-initiated academic randomized controlled trial, conducted in 28 French centers. Patients on maintenance IST with azathioprine or mycophenolate mofetil for a minimum of 2 years and a maximum of 3 years, and who were taking Hydroxychloroquine, were randomized (1:1) between 2 groups: IST continuation and IST discontinuation. The primary endpoint was the relapse rate of proliferative LN at 24 months. Secondary endpoints were the rate of severe SLE flares, survival without renal relapse or severe flare, adverse events, kidney function, disease activity, corticosteroid exposure, patient-reported outcomes, and medico-economic impact.

Results: Between 2011 and 2016, 125 patients were screened and 96 were randomized in the trial: 48 in the IST continuation group, 48 in the IST discontinuation group. In the per-protocol population, a relapse of proliferative LN occurred in 5/40 (10.4%) patients with IST continuation, and in 12/44 (27.3%) patients with IST discontinuation (difference 14.8%, 95%CI [-1.9; 31.5]). Non-inferiority was not demonstrated for relapse rate. Time to renal relapse did not differ between groups (p=0.092). Severe SLE flares (renal or extra-renal) were less frequent in patients with IST continuation compared to IST discontinuation (5/40 vs 14/44 patients, p=0.035). IST discontinuation was associated with lower health-related costs. Adverse events did not differ between groups.

Conclusion: Non-inferiority of maintenance IST discontinuation after 2 to 3 years was not demonstrated for renal relapse. IST discontinuation was associated with a high risk of severe SLE flare.

REFERENCES:

Acknowledgements: This study is supported by the Ligue Nationale contre le Lupus Rénal (CGLR).

Disclosure of Interests: No conflicts to declare.