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FRI0666 RHEUMATIC COMPLICATIONS OF IMMUNE CHECKPOINT INHIBITOR THERAPY: A CASE SERIES

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Background: Immune checkpoint inhibitor therapy reduces negative signals of T cell activation and enables tumour-specific T cells to mount a more effective response. Use of these drugs in management of malignancy has been associated with the development of auto-immune disease. There are few published studies describing immune-related adverse events affecting the musculoskeletal system.

Objectives: This study aimed to describe the spectrum of musculoskeletal presentations in patients treated with programme death (PD)-1 and/or cytotoxic T lymphocyte associated antigen (CTLA)-4 blockade.

Methods: 16 patients were identified by retrospective review of records. All patients had received treatment with monoclonal antibodies specific for PD-1, PD ligand-1 and/or CTLA4 and had been referred for rheumatology assessment of musculoskeletal complications. We assessed clinical presentation, results of blood tests for C-reactive protein (CRP), anti-nuclear antibody (ANA), rheumatoid factor (RF) and anti-cyclic citrullinated peptide (CCP) antibody, and response to treatment.

Results: Seven males and nine females, with mean age of 56 years were evaluated. 13 patients had melanoma, two renal cell cancer and one triple negative breast cancer. Patients presented with a spectrum of musculoskeletal symptoms. Five patients displayed features most consistent with polymyalgia rheumatica (PMR), five had peripheral spondyloarthritis (SPA) features with lower limb oligoarthritis or plantar fasciitis, four had rheumatoid arthritis (RA) features with small joint polyarthritis, one had myositis with raised creatine kinase and one had new onset of gout. Only one of 16 patients was positive for RF. All patients were seronegative for anti-CCP antibodies and ANA. One patient with RA presentation had a high CRP of 39mg/L. Five patients had a mildly elevated CRP of 5-10mg/L. Other patients did not show an acute phase response. All patients received treatment with corticosteroid with benefit. Intra-articular and soft-tissue corticosteroid injections were also effective. One of two patients with RA presentation responded to sulfasalazine, and none of two patients with RA presentation responded to methotrexate. One patient with RA presentation and one with SPA presentation responded to tumour necrosis factor (TNF)-alpha blockade.

Conclusion: Attenuating inhibitory signals of T cell activation using immune checkpoint inhibitor therapy is associated with a range of rheumatic complications, including PMR-like as well as RA- and peripheral SPA-like presentations. The majority of patients were seronegative for RF, CCP and ANA, and had low or borderline elevated CRP. All patients showed a response to prednisolone. TNF-alpha blockade was effective for RA and SPA presentations.

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IS OBESITY A FACTOR OF POOR OUTCOME IN SPONDYLOARTHRITIS? AN ANALYSIS OF 638 PATIENTS

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Background: There are few data on obese patients with axial spondyloarthritis (axSpA).

Objectives: To explore the impact of body mass index (BMI) on personal, professional and social life of axSpA patients.

Methods: Between December 2017 and February 2018, French patients followed for axSpA by their rheumatologists or affiliated to the French patients association AFLAR, and self-reporting axSpA, participated in the European Map of Axial Spondyloarthritis (EMAS) cross-sectional patient survey¹. Sociodemographic data (including weight and height), axSpA characteristics and disease impact on personal (social interactions, frequency of social activities) and professional life (working hours, sick leave, and disability) were collected via an online questionnaire. Patients were classified in two groups according to their BMI (obese BMI ≥ 30 kg/m², non-obese: BMI < 30 kg/m²) and a comparison between the two groups was conducted using chi2 or Mann-Whitney tests. There was no imputation of missing data.

Results: Data of 638 patients, mainly women 77%, median age (years) 41.5 ± 11.1 were collected in France in 2018. Median BMI was 26.1 ± 5.5 and 22.1% patients were obese (n = 141). Median age was significantly higher in obese patients (44.1 ± 9.9 vs 40.8 ± 11.3; p = 0.001), but there was no difference regarding gender, level of education and socio-professional categories. The obese had a longer diagnosis delay for axSpA (median 8.2 ± 8.4 vs 6.6 ± 8.1 years; p = 0.01). They were more to report psoriasis (33.8% vs 21.9%; p = 0.005) and the following comorbidities: anxiety, depression fibromyalgia, high blood pressure, hypercholesterolemia, diabetes and renal failure. Disease activity was also higher in the obese population: median BASDAI 6.5 ± 1.5 vs 5.8 ± 1.8 (p < 0.001) and BASDAI ≥ 4 in 92.9% vs 84.3% (p < 0.01). The same proportion of patients (61.9%) has been treated by a biologic in the two groups. The impact of axSpA on personal life was more frequently reported by the obese: 65.2% vs 48.0% (p < 0.005) had reduced the frequency of sport activities because of axSpA and 42.5% vs 28.3% (p < 0.005) their sexual intercourse. There were a lower number of obese, who had a regular physical activity (58.9% vs 68.8%; p > 0.05) with a shorter mean duration of sport practice. At the opposite, no difference was observed regarding the impact of axSpA on professional life, with a similar proportion of obese and non-obese patients reporting sick leave (32.1% vs 24.9%) or disability (31.9% vs 28%). The mean number of working hours for the active people was also similar (35.5 vs 34.2 hours) in the two groups.

Conclusion: In this survey, obesity affected 22.1% of axSpA patients and was associated to a higher disease activity and a greater impact on personal life of axSpA, but not on their professional life. Obesity and its consequences have to be considered in the management of axSpA as it is already the case for psoriatic arthritis.

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