Conclusions: A target subgroup of unilateral symptomatic knee OA subjects and potential optimal dose (0.07 mg) of SM04690 were identified. Clinical and radiographic outcomes suggested that SM04690 has potential as a DMOAD, especially in subjects with unilateral symptomatic WP- knee OA. Further studies are ongoing.

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Other orphan diseases

SAT0587 MAJOR SALIVARY GLANDS ULTRASONOGRAPHY IN DIFFERENTIAL DIAGNOSIS OF IGG4-RELATED DISEASE AND PRIMARY SJOGREN'S SYNDROME

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Background: IgG4-related disease (IgG4-RD) is a group of fibro-inflammatory immunomediated conditions with IgG4 overexpression in the serum and affected tissues in the majority of patients. Major salivary and lacrimal glands are the most frequently affected sites in IgG-RD. Moderate sicca symptoms can be present as well thus requiring differential diagnosis with primary Sjogren's syndrome (pSS). Major salivary glands ultrasonography (sUS) has been reported as an effective diagnostic tool in pSS.

Objectives: To evaluate the difference in sUS score in pSS and IgG4-RD patients

Methods: 15 patients with IgG4-related sialoadenitis consecutively admitted to our clinic and 28 with pSS underwent sUS. Parenchymal echogenicity, homogeneity, hypoechogenic and hyperechogenic areas and clearness of salivary gland border were scored according to the Hocevar scoring system (cut-off – 15 points). Statistical analyses were performed using MEDCALC program. Median values of the sUS score and Mann-Whitney U-test were used to evaluate differences in total ultrasound score between patients in two groups.

Results: All patients with IgG4-related sialadenitis and pSS had some sUS abnormalities. The most frequent feature in IgG4-RD were: the presence of hypoechotic lesions in major salivary glands (53% of patients) or diffuse salivary gland parenchyma hypoechogenicity (27% of patients) and multiple intraglandular lymph nodes (66.7% of patients). Median value of sUS score in IgG4-RD group was 12 points and in pSS group – 22 points. The difference was significant (Mann-Whitney U-test 60.5, $p < 0.05$).

Conclusions: Although different US-changes are frequently seen in IgG4-RD patients, sUS Hocevar score seems to be a rather reliable tool to differentiate IgG 4-related sialoadenitis and pSS.

Disclosure of Interest: None declared

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SAT0588 RHEUMATOLOGIC IMMUNE-RELATED ADVERSE EFFECTS OF CHECKPOINT INHIBITOR THERAPY: A SINGLE CENTRE COHORT OF 29 PATIENTS

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Background: Immune checkpoint inhibitors for advanced malignancy are associated with a wide range of autoimmune phenomena known as immune-related

adverse effects (irAEs).¹ Knowledge of irAEs resembling rheumatologic diseases is limited to case reports and small case series, and there are currently no specific guidelines on how to diagnose or manage these patients.

Objectives: To describe the prevalence, clinical presentation, and management of patients with rheumatologic irAEs from checkpoint inhibitor therapy.

Methods: We retrospectively studied all patients who received a checkpoint inhibitor for any malignancy at Mayo Clinic Rochester, Minnesota between January 1 st, 2011 and November 1 st, 2017. From these patients we identified those with possible rheumatologic irAEs using diagnostic codes, search terms, and the presence of specific laboratory testing.

Results: Of the 1216 patients who received any checkpoint inhibitor, we identified 29 who were clinically diagnosed with a rheumatologic irAE. The diagnosis was confirmed by a rheumatologist in all but 3 cases. Mean follow up time from irAE diagnosis was 1.5 years (± 1.1). Seven patients had a pre-existing autoimmune disease with one of these being a rheumatologic disease (Giant-cell arteritis). irAEs included inflammatory arthritis,¹⁵ sicca syndrome,³ systemic sclerosis,³ myositis,³ vasculitis,³ spondylitis,¹ and polymyalgia rheumatica.¹ Only one irAE represented a disease flare. Mean time from initiation of checkpoint inhibitor therapy to onset of irAE symptoms was 15.0 weeks (± 10.8). 24 patients (83%) were treated with corticosteroids and 8 patients (28%) received additional therapy with disease modifying drugs. Mean treatment duration for these 24 patients was 19.5 weeks (± 21.7), and 8 patients (33%) had complete symptom resolution within the study period. Rheumatologic irAEs resulted in discontinuation of checkpoint inhibitor therapy in 7 patients (24%).

Abstract SAT0588 – Table 1. Clinical Features

Rheumatologic irAEs	29 total
Inflammatory arthritis	15
Sicca syndrome	3
Systemic sclerosis	3
Myositis	3
Vasculitis	3
Spondylitis	1
Polymyalgia rheumatica	1
Treatment	
Prednisone only	16
Prednisone plus biologics	8
No treatment	5
Starting prednisone dose, MG, mean (St. Dev)	47 (26)
Weeks on prednisone, mean (St. Dev)	15 (11)
Weeks to symptom onset, mean (St. Dev)	15 (11)
Sedimentation rate, mean (St. Dev)	39 (30)
C-reactive protein, mean (St. Dev)	49 (57)
Diagnosed by rheumatologist	26 (90%)
Positive autoimmune serologies	4 (14%)
Flare of existing autoimmune disease	2 (7%)
Comorbid non-rheumatologic irAEs	19 (66%)

Conclusions: Our study represents one of the largest cohorts of rheumatologic irAEs to date. Most patients required long courses of treatment with only a minority achieving complete symptom resolution. Prospective, multicenter studies are necessary to determine the optimal management of these emerging disorders.

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