be increasing and there is little information about the clinical and epidemiological characteristics of this group of patients.

Objectives: To compare basic demographics of a cohort of deceased sarcoid patients with a non-deceased sarcoid population, and to describe the presenting organ involvement among the deceased sarcoid population.

Methods: Patients seen at the Stanford University Hospital and Clinics from 2009–2017 who were >18 years of age with at least one ICD-9 or 10 diagnosis of sarcoidosis and at least one clinical note with the term "sarcoidosis" were identified by EMR. After determining the demographics of this cohort, deceased patients were identified and an extensive chart review of these subset of patients was conducted. The project was approved by Stanford's Institutional Review Board.

Results: 1190 adult patients with an ICD code for sarcoidosis were identified. Demographic comparison between the non-deceased and deceased population is summarised in the table 1 below.

	Non-deceased sarcoid patients	Deceased sarcoid patients
Total patients	1086	104
Gender:	660 (60.8%)	59 (56.7%)
Females	426 (39.2%)	45 (43.3%)
Males		
Race:	67 (6.2%)	1 (0.9%)
Asian	197 (18.1%)	26 (25%)
Black	596 (54.9%)	45 (43.2%)
White	6 (0.6%)	0 (0%)
Native American	128 (11.8%)	18 (17.4%)
Others	91 (8.4%)	14 (13.5%)
Unknown		
Ethnicity	918 (84.5%)	80 (76.9%)
Non-Hispanic	67 (6.2%)	11 (10.5%)
Hispanic/Latino	101 (9.3%)	13 (12.6%)
Unknown		

In comparison with non-deceased patients with sarcoidosis, the proportion of African American population was higher in the deceased population, whereas the proportion of Asians and whites was lower in the deceased population. The percentage of male patients in the deceased subset was slightly higher than the non-deceased population. 65 (62.5%) of the 104 deceased patients were symptomatic at diagnosis, 6 (5.8%) were asymptomatic and information was not available for 33 (31.7%) patients. Of the 65 symptomatic patients, presenting organ involvement was either pulmonary (34, 52.3%), cardiac (11, 16.9%), cutaneous (8, 12.3%), neurological (4, 6.2%), ocular (3, 4.6%), constitutional (5, 7.7%), unknown (1, 1.5%), musculoskeletal (1, 1.5%), renal–calcium related (1, 1.5%), hepatic (2, 3%), laryngeal (1, 1.5%), nasal and sinus (2, 3%), parotid gland (1, 1.5%), gastrointestinal (1, 1.5%), or others (5, 7.6%).

Conclusions: This study compares the demographics of subset of deceased sarcoid patients with a population of non-deceased sarcoid patients, and describes the presenting organ involvement among the deceased sarcoid population. African American males had a higher mortality rate compared to Asians and Caucasians. Pulmonary and cardiac disease represented 69.2% of organ involvement in the deceased. Our study showed a mortality rate of 8.7% in the sarcoid population which is in keeping with the newer studies that mortality in patients with sarcoid might be on the rise. With further study of this population, we aim to compare the characteristics of non-deceased sarcoid patients with the deceased patients, including presenting organ involvement, diagnostic workup and treatment regimen and hope to gain a better understanding of the possible reasons for increasing mortality in patients with sarcoidosis.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.6164

THU0628 DIFFERENCES IN CLINICAL MANIFESTATIONS OF BEHCET'S SYNDROME BY GENDER: CROSS-SECTIONAL ANALYSIS IN A UK COHORT

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Background: Geographical variations in genotype and phenotype of Behçet's syndrome (BS) are reported.^{1,2} Previous meta-analysis of international cohorts has highlighted differences in clinical manifestations of BS by gender.³ A comparison of BS clinical manifestations by gender has not been analysed previously in a large UK BS cohort.

Objectives: 1) To compare the clinical manifestations of BS in a UK cohort by gender and 2) to compare this to published international data.

Methods: A retrospective cross sectional analysis was performed using clinical databases at the Liverpool and Birmingham BS Centres of Excellence. Patients with a multi-disciplinary diagnosis of BS or International Study Group (ISG) diagnostic criteria were included. Clinical manifestations and HLA-B51 positivity were compared by gender. T-tests and chi-squared tests were used for continuous and categorical data respectively and a p value of 0.05 or less was considered statistically significant.

Results: 433 patients met inclusion criteria (140 males, 32.3%). Male patients were younger and had significantly higher rates of ocular and vascular involvement, papulopustular skin rash and HLA-B51 positivity. Female patients had significantly higher rates of genital aphthosis and arthralgia.

	Male (n=140)	Female (n=293)	p value
Age (years), mean (s.d.)*	41.2 (12.5)	44.1 (11.9)	0.02
Recurrent oral aphthosis, n (%)	139 (99.3)	291 (99.3)	0.97
Genital aphthosis, n (%)*	111 (79.3)	278 (94.9)	<0.01
Papulopustular skin rash, n (%)*	69 (49.3)	107 (36.5)	0.01
Erythema nodosum, n (%)	29 (20.7)	56 (19.1)	0.70
Skin aphthosis (n,%)	7 (5.0)	8 (2.7)	0.23
Uveitis, n (%)*	81 (57.9)	99 (33.8)	<0.01
Retinal vasculitis, n (%)*	39 (27.9)	36 (12.3)	<0.01
Central nervous system involvement, n (%)	16 (11.4)	20 (6.8)	0.11
Large vein thrombosis, n (%)*	22 (15.7)	19 (6.5)	<0.01
Arterial thrombosis or aneurysm, n (%)	4 (2.9)	7 (2.4)	0.77
Thrombophlebitis, n (%)*	10 (7.1)	5 (1.7)	<0.01
Gastro-intestinal involvement, n (%)	8 (5.7)	25 (8.5)	0.30
Arthralgia, n (%)*	68 (48.6)	180 (61.4)	0.01
Ethnicity (British or White), n (%)*	90 (64.3)	238 (85.9)	<0.01
	(n=126)	(n=277)	
HLA-B51 positive, n (%)*	14 (58.3)	9 (20.0)	<0.01
	(n=27)	(n=45)	

*statistically significant

Conclusions: Similar to published international cohorts, male patients with BS in the UK have higher rates of ocular and venous involvement, papulopustular skin rash and HLA-B51 positivity and lower rates of genital aphthosis and arthralgia in comparison to female patients. However, the extent to which these differences are attributable to ethnicity is unclear.

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Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.3249

THU0629 A STUDY OF WBMRI IN ESTIMATING DISEASE ACTIVITY OF PM/DM AND THE FOLLOWING DISEASES DIAGNOSIS

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Background: IM is a group of disease characterised by chronic symmetrical myasthenia, muscle fatigue and monocyte infiltrating skeletal muscle. This disease usually associates with the muscle of trunk and proximal limbs, skin lesions accompanied or not. Dermatomyositis (DM) and polymyositis (PM) account for the major part of IM clinically. The diagnosis of these diseases mainly rely on clinical manifestation, biopsy, ECG and serum creatase. Whole-body magnetic resonance imaging (WBMRI) has been reported succeeding in diagnosing PM/DM through short tau inversion recovery (STIR) sequence, but the ability to estimate disease activity hasn't been reported.

Objectives: To evaluate the value in WBMRI through STIR sequence in evaluating the disease activity of polymyositis (PM) and dermatomyositis (DM) and screening interstitial lung disease (ILD) and osteonecrosis.

Methods: PM/DM patients meeting the Bohan and Peter diagnostic criteria from the First Affiliated Hospital of Zhengzhou University were admitted between 2015 August to 2017 December. A retrospective analysis of the WBMRI imaging data, serum creatine kinase, electromyography and muscle biopsy were performed. The WBMRI images were estimated by semiquantitative score and the disease activity was estimated by MDAAT. SPSS 20.0 was utilised to analyse the statistical significance.

Results: This study includes 61 patients, including 41 DM cases and 20 PM cases, all of these shows typical pathological feature and inflammatory muscle in WBMRI. Significant statistical correlation was found between the grade of muscle oedema estimated by WBMRI and the clinical assessment through MDAAT for muscle disease activity (DM $r=0.57$, $p=0.006$; PM $r=0.84$, $p=0.001$). The positive rate of serum creatine kinase test was 63% (39/61). Besides muscular changes, we also detected 35 cases in interstitial lung disease, 2 cases in osteonecrosis, 1 case in bone marrow oedema.

Conclusions: WBMRI is a sensitive, noninvasive method to evaluate the disease activity, which is better than serum creatine kinase. And it is of great value to screen the complication or concomitant diseases such as ILD and osteonecrosis.

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Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.6933

THU0630

IMMUNE-RELATED ADVERSE EVENTS ASSOCIATED WITH IMMUNE CHECKPOINT INHIBITORS IN SPANISH PATIENTS

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Background: Immune checkpoint inhibitors (ICI), a type of immunotherapy which block negative co-stimulation of T-cells, have surfaced as an important alternative of treatment for advanced malignancies. Unfortunately, these agents have been associated with immune-related adverse events (irAE).

Objectives: To analyse the frequency, type and outcome of irAE in Spanish patients treated with ICI.

Methods: We carried out a retrospective, observational and longitudinal study, including adult patients diagnosed with cancer and treated with ICI followed in our centre (Spanish university hospital) from October 2012 to December 2017. Demographics, clinical, therapeutic and outcome data were collected from their medical records.

Results: We included 125 patients, 66.4% males, all them Caucasians, with a mean age at diagnosis 63 years (range:42-81). The most common types of cancers were lung carcinoma (61.6%) and melanoma (12.8%). The ICI most frequently used was nivolumab (29.6%), followed by pembrolizumab (8.8%) and atezolizumab (8.8%), as monotherapy. It was also common, combinations, or the use of consecutive way with different drugs. Occurrence of irAE was reported in 51 patients (table 1) and the systems more frequently involved were gastrointestinal tract, endocrine glands and skin. Most of these cases were treated steroids at high doses but a case of colitis required infliximab. Withdrawal of immunotherapy was required in almost half of the adverse events (45%). During the follow-up period there were 5 deaths associated with irAE.

Conclusions: The frequency and type of irAE associated ICI in our series were similar to those reported in previous studies, except for rheumatological events, being arthritis and sicca syndrome the most frequently reported in other series. These adverse events are not rare and may be a potential cause of morbidity in these patients, so it is important to recognise them early and treat properly, with the rheumatologist being one of the specialists involved.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.7103

THU0631

REFRACTORY AND SEVERE UVEITIC CYSTOID MACULAR OEDEMA IMPROVES WITH TOCILIZUMAB IN DIFFERENT IMMUNE-MEDIATED INFLAMMATORY DISEASES

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Background: Cystoid macular oedema (CME) represents the leading cause of blindness in uveitis of different immune-mediated inflammatory diseases (IMIDs).

Objectives: Our aim was to evaluate the efficacy of Tocilizumab (TCZ) in different IMIDs with refractory CME.

Methods: Multicentre study of 24 patients with CME due to uveitis of different IMIDs refractory to traditional treatment with systemic corticosteroids and at least one conventional immunosuppressive drug including in most cases biological therapy (n=21). CME was defined by (OCT >300 µm). We studied CME with TCZ in 4 different IMID: juvenile idiopathic arthritis (JiA), Behçet's disease (BD), Birdshot retinochoroidopathy (BR) and idiopathic.

The main outcome was the improvement of macular thickness. Other variables assessed were inflammation of the anterior chamber and vitreous and best corrected visual acuity (BCVA)

Results: We studied 16 ♀/8 ♂, mean age 35.2±19.3 years. The associated diseases were: JiA (n=9), BD, ⁷BR⁴ and idiopathic.⁴ The ocular patterns were: panuveitis,⁹ anterior uveitis,⁶ posterior uveitis⁵ and intermediate uveitis.⁴ Most patients had bilateral involvement.²² The biological therapy used before the administration of TCZ were infliximab,⁸ adalimumab,¹⁸ etanercept,² golimumab,² rituximab,² abatacept,³ anakinra¹ and daclizumab.¹

TCZ administration schedule was 8 mg/kg/4 weeks iv.²³ or every 2 weeks.¹ TCZ was used in monotherapy¹² or combined with conventional immunosuppressive drugs.¹² OCT values improved considerably in 12 months: in JiA from 340.6 ±134.1 µm to 252.5±30 µm, in BD from 375.1±117 µm to 235±7.1 µm, in BR from 550.7±214.4 µm to 295.5±43.2 µm and in idiopathic from 515±219.6 µm to 208.3 ±46.7 µm (figure 1). Inflammation in anterior chamber and vitritis and BCVA also improved in the 4 subtypes. No minor side effects were observed, so no patient had to stop treatment.

Conclusions: TCZ seems a rapid effective treatment in severe and refractory uveitic CME, regardless of the underlying IMIDs.

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Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.4024