Methods: We retrospectively evaluated consecutive patients admitted to our department from January 2006 to October 2021 whose C7-HRP antigen were measured. We collected their age, sex, primary problem and its lesion, and test results within 3 months before C7-HRP measurement. We also investigated the use of immunosuppressants, and maximum and cumulative dose of administered prednisolone within 6 months before C7-HRP measurement. Maximum and cumulative dose of prednisolone contained methylprednisolone pulse, which was converted into prednisolone equivalent. We investigated the characteristics of CMV-positive and negative patients, and those of CMV-positive patients with or without anti-CMV drug use.

Results: Of a total of 472 patients, 85 were positive and 387 were negative for C7-HRP. The average age was 71.2 vs. 64.4 (p=0.0021). Their male-to-female ratio was 20/65 vs. 120/267 (p=0.0290). The following diseases were significantly common among CMV-positive patients: microscopic polyangiitis (21.2% vs. 3.9%, p<0.0001), adult-onset Still's disease (7.1% vs. 1.3%, p=0.0002), and systemic sclerosis (4.7% vs. 2.1%, p=0.0273). Significantly common comorbidities of CMV-positive patients were interstitial lung disease (35.3% vs. 16.0%, p<0.0001), nephritis (23.5% vs. 11.6%, p=0.0005), peripheral nervous system disorders (11.8% vs. 5.7%, p=0.0070), alveolar hemorrhage (5.9% vs. 0.8%, p=0.0001), and peripheral circulatory disorders (4.7% vs. 1.6%, p=0.0111). Average neutrophil counts (7720 /μL vs. 6440 /μL, p=0.0001), serum creatinine (1.0 mg/dL vs. 0.9 mg/dL, p=0.0104), and hemoglobin A1c (6.3% vs. 5.7%, p=0.0030) were significantly higher among CMV-positive patients, whereas hemoglobin (10.1 g/dL vs. 11.1 g/dL, p<0.0001), lymphocyte counts (820 /μL vs. 1190 /μL, p<0.0001), platelet counts (233000 /μL vs. 259000 /μL, p<0.0001), and serum albumin (2.9 g/dL vs. 3.4 g/dL, p<0.0001) were lower. Higher maximum dose of prednisolone (534.9 mg/day vs. 135.5 mg/day, p<0.0001), intravenous cyclophosphamide (27.1% vs. 11.4%, p<0.0001), rituximab (9.4% vs. 2.1%, p<0.0001), azathioprine (23.5% vs. 14.2%, p=0.0053), cyclosporin (8.2% vs. 3.6%, p=0.0101) were significantly more often used among CMV-positive patients. Average cumulative dose of prednisolone was 3022.6 mg vs. 1408.7 mg (p<0.0001). We also performed multivariate analysis, including the patients' age, sex, maximum and cumulative dose of prednisolone, and the use of intravenous cyclophosphamide, rituximab, azathioprine, and cyclosporin. Elderly (p=0.0006), female (p=0.0293), high cumulative dose of prednisolone (p=0.0155), and the use of cyclosporin (p=0.0479) were significantly associated with CMV-positivity. Anti-CMV drug was administered to 63.5% of CMV-positive patients. The average age was significantly higher in anti-CMV-drug-treated patients than untreated patients (73.7 vs. 67.1, p=0.0492). The CMV-treated patients had significantly higher neutrophil counts (8540 /μL vs. 6280 /μL, p<0.0001), erythrocyte sedimentation rate (57.6 mm/h vs. 40.5 mm/h, p<0.0001), and C-reactive protein (5.3 mg/dL vs. 2.6 mg/dL, p<0.0001) than the untreated patients while the other data such as complete blood counts and serum chemistry revealed no significant difference. Average maximum dose of prednisolone was significantly higher in CMV-treated patients (617.1 mg/day vs. 391.1 mg/day, p=0.0261) while average cumulative dose of prednisolone and the use of any other immunosuppressants revealed no significant difference.

Conclusion: Intense immunosuppression, especially with higher dose of glucocorticoids, seemed to be the major risk factor of CMV reactivation. These medications may often require anti-CMV therapy.

Disclosure of Interests: None declared

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POS1424 RISK FACTORS FOR ADVERSE EVENTS OF SULFAMETHOXAZOLE-TRIMETHOPRIM PROPHYLAXIS IN PATIENTS WITH SYSTEMIC RHEUMATIC DISEASES

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Background: The prophylactic use of sulfamethoxazole-trimethoprim (SMX/TMP) can reduce the risk for developing pneumocystis pneumonia in immunosuppressed patients with systemic rheumatic diseases, whereas discontinuation of SMX/TMP prophylaxis is frequent due to adverse events (AEs) with this drug.

Objectives: The purpose of this study was to identify risk factors for AEs of SMX/TMP in patients with systemic rheumatic diseases.

Methods: All consecutive patients who were admitted in our hospital for induction treatment between 2012 and 2019 and newly received prophylactic SMX/TMP were included in the study. We divided them into two groups according to the presence or absence of AEs of SMX/TMP leading to discontinuation of the drug and compared clinical characteristics between the AE and non-AE groups. Multivariable analysis was performed to identify risk factors for AEs of SMX/TMP prophylaxis.

Results: A total of 438 patients were included in the study. Rheumatic diseases of the patients were systemic lupus erythematosus (25.3%), anti-neutrophil cytoplasmic antibody associated vasculitis (15.5%), rheumatoid arthritis (11.6%), polymyositis/dermatomyositis (10.7%), IgG4-related disease (8.5%), large vessel vasculitis (7.1%), adult-onset Still's disease (AOSD; 4.1%), and others (17.2%). Among them, 82 patients (18.7%) stopped SMX/TMP due to AEs. Most frequent AEs were skin rash (36.6%), followed by liver dysfunction (29.3%), thrombocytopenia (19.5%), elevation in serum creatinine levels (15.9%), hyperkalemia (14.6%), hyponatremia (11%), leukopenia (6.1%), and fever (6.1%). Baseline age (61.4±16.4 vs 56.3±16.9 years, p=0.014) and prednisolone dose for remission induction treatment (0.97 vs 0.91 mg/kg/day, p=0.03) were significantly higher in the AE group than in the non-AE group, respectively. In terms of disease type, significantly higher rates of AEs were observed in patients with AOSD than in those with the other diseases (66.7% vs 16.7%, p<0.001; Figure 1). Blood tests at SMX/TMP initiation demonstrated lower lymphocyte counts (10.1 vs 10.8 $x10^2$/μl, p=0.049), lower platelet counts (20.9 vs 25.8 $x10^4$/μl, p=0.045), lower albumin levels (3.2 vs 3.4 g/dl, p=0.007), higher AST levels (26 vs 23 U/L, p=0.04), higher creatinine levels (0.71 vs 0.67 mg/dl, p=0.047), and higher ferritin levels (167 vs 154 ng/ml, p=0.047) in the AEs group compared with the non-AEs group, respectively. Multivariable analysis identified an older age (OR 1.03, p=0.002) and AOSD (OR 9.72, p<0.001) as independent risk factors for AEs leading to SMX/TMP withdrawal (Table 1).

Figure

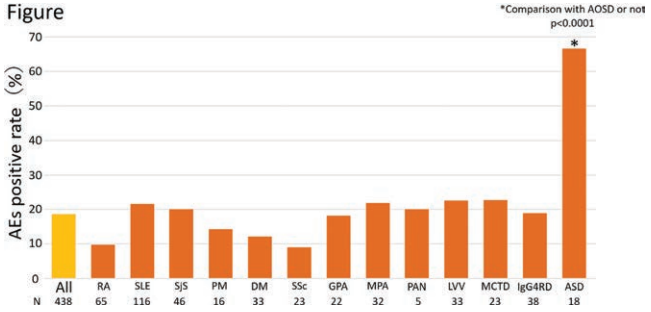

Table Risk factors for AEs due to SMX/TMP in systemic rheumatic disease patients

	Unadjusted odds			Adjusted odds		
	Odds ratio	95 % CI	P values	Odds ratio	95 % CI	P values
Gender (female)	0.913	0.544-1.532	0.73	0.837	0.472-1.483	0.543
Age	1.019	1.004-1.034	0.015	1.027	1.010-1.045	0.002
ASD	9.999	3.631-27.54	<0.001	9.718	3.224-29.29	<0.001
Induction PSL dose	3.588	1.143-11.26	0.029	2.569	0.778-8.484	0.122
Lymphocyte	0.9996	0.9991-0.9999	0.034	0.9996	0.9991-1.0002	0.066
Plt	0.999	0.9965-1.0006	0.165	0.998	0.9959-1.0005	0.120
Cr	1.198	0.739-1.940	0.46	0.906	0.519-1.585	0.731

Conclusion: Old age and AOSD were associated with AEs of SMX/TMP prophylaxis in patients with systemic rheumatic diseases.

Disclosure of Interests: None declared

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POS1425 THE BURDEN OF OSTEOARTHRITIS ACROSS THE STATES OF INDIA, 1990–2019: FINDINGS FROM THE GLOBAL BURDEN OF DISEASE STUDY 2019

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Background: Few studies have reported the burden of osteoarthritis (OA) in different parts of India. However, no study has reported the detailed estimates of incidence, prevalence, and years lived with disability (YLDs) and its trends for OA (and its various sites) across the states of India over a long period of time.

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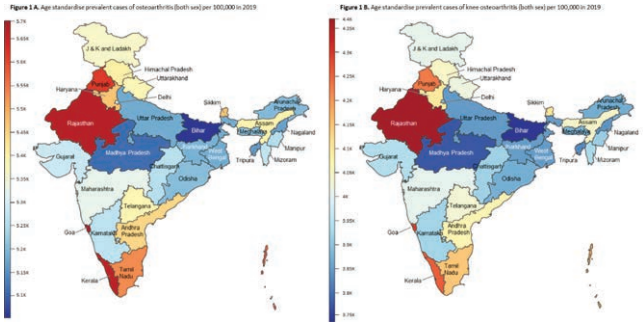
Objectives: We aim to describe the state-wise prevalence, incidence, and YLDs for osteoarthritis (OA) in India from 1990 to 2019 according to age and sex.
Methods: Data from the Global Burden of Diseases, Injuries, and Risk Factors Study (GBD) 2019 were used. The burden of OA –including knee OA, hip OA, hand OA, and other OA– was estimated for India and its states from 1990 to 2019 through a systematic analysis of prevalence, incidence, and YLDs modelled data using the methods reported in the GBD 2019 Study. All estimates are presented as counts and age-standardised rates per 100,000 population, with uncertainty intervals (UIs).
Results: Around 23.46 million individuals in India had OA in 1990; this increased to 62.35 million in 2019. The age-standardised prevalence of OA increased from 4,895 (95% uncertainty interval (UI): 4,420–5,447) in 1990 to 5313 (95%UI: 4,799–5,898) in 2019, per 100,000. OA was the 20th most common cause of YLDs in India in 2019, accounting for 1·48% (95%UI: 0·88–2·78) of all YLDs; increasing from 23rd most common cause in 1990 (1·25% (95%UI: 0·74–2·34)). Knee OA was the most common form of OA, followed by hand OA. The prevalence, incidence, and YLDs for OA and knee OA were consistently higher in females than males. Uttar Pradesh (8.53 million (95%UI: 7.63–9.53), Maharashtra (6.37 million (95%UI: 5.75–7.06), and West Bengal (4.90 million (95%UI: 4.39–5.46) had the three highest levels of OA prevalence. Goa (5689 (95%UI: 5,125–6,282)), Rajasthan (5667 (95%UI: 5,097–6,305)), and Kerala (5658 (95%UI: 5,107–6,263)) had the highest age-standardised prevalence of OA in 2019, per 100,000 (Figure 1 A and B).



Conclusion: The burden and impact of OA in India are substantial and is increasing; however, it varied among states. Females were affected more commonly than males. Knee OA was the most prevalent site. With improvement in life expectancy and population ageing, greater increases are expected. Adopting suitable control and preventive community measures to reduce modifiable risk factors (such as obesity, injuries, occupational stress) are needed now to reduce the current and future burden of OA in India.
Disclosure of Interests: None declared
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POS1426 INCIDENCE, CLINICAL FEATURES AND OUTCOMES OF PATIENTS WITH POLYMYALGIA RHEUMATICA IN SLOVENIA

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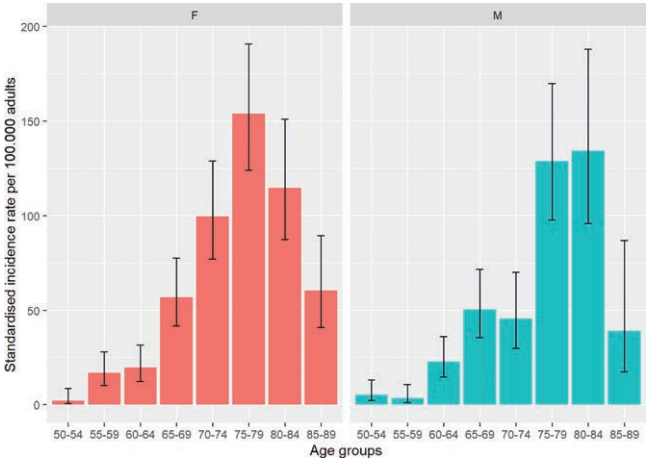
Background: Polymyalgia rheumatica (PMR) is common in patients over the age of 50 years. Clinical symptoms promptly respond to glucocorticoid therapy, but there are wide variations of dosage tapering, treatment duration and rate of relapses. In Slovenia epidemiology of PMR is unknown.
Objectives: We aimed to determine the incidence rate of PMR, the clinical characteristics, the relapse frequency and length of glucocorticoid therapy.
Methods: A detailed single centre retrospective review of medical records of all patients diagnosed with PMR between 1 January 2014 and 31 December 2016 was performed at the Department of Rheumatology, University Medical Centre Ljubljana, Ljubljana, Slovenia–the only secondary level rheumatology institution in serving the Central Slovenian and Gorenjska regions, which represent ~40% (7×105) of the Slovenian adult population. The outcomes were assessed up to1 October 2021.
Results: During the 3-year period 494 patients (460 from Ljubljana and Gorenjska regions) were diagnosed with PMR (64% females, median (IQR) age 75 (69, 80) years), resulting in an annual sex- and age-standardised incidence rate (IR) per 105 adults ≥ 50 years of 46.0 (95% CI 42.0, 50.4), with a female/male ratio of 1.5 (95% CI 1.3, 1.7). The IR peaked between 70–85 years (Figure 1). There was no seasonal variation in IR. The median (IQR) times from symptom onset, and from referral to rheumatology consultation were 6 (4, 11) weeks, and 1 (1, 1) day, respectively. 86% were referred by their GPs, 7% by other internists, and 6% by infectious disease specialists, and the rest by other specialists. At presentation, 96% had morning stiffness (71% lasting >45 minutes), 99% shoulder pain, 94% pelvic girdle pain, 49% weight loss, 13% peripheral arthritis, and 12% body temperature >37°C. Data on US of shoulders and hips was complete, partial, or missing for 38%, 24%, 39%, respectively. Elevated erythrocyte sedimentation rate (ESR) or C-reactive protein (CRP) was present in 98% of patients, the median (IQR) ESR was 55 (42, 71) and CRP 49 (26, 79) mg/l, and 58% had anaemia. RF and ACPA were positive in 4% and 3%, respectively. 8/12 had ACPA values less than 2× the reference value. During follow-up ACPA was repeated in 8/12 patients and negativized in 6/8 patients. Among other pre-existing conditions, 51 (10%) had history of malignancy diagnosed a median 7 (3–11) years prior to diagnosis of PMR. EULAR/ACR classification criteria for PMR were fulfilled in 68% and 71% based on clinical and extended ultrasound criteria (missing items were imputed with 0), respectively. 14 (3%) patients had clinically overt concurrent giant cell arteritis (GCA). All patients were treated with methylprednisolone, administered orally in 99.4%, 93% started at 16mg qd. By the end of follow-up, 295 (60%) patients successfully discontinued methylprednisolone after a median of 117 (104, 143) weeks. Steroid sparing leflunomide and methotrexate were used by 66 (13%) and 27 (6%) patients, respectively. During a median follow-up of 150 (98, 244) weeks, 146 (30%) had at least one relapse. Median time to first relapse was 111 (50, 141) weeks. 54% relapsed after glucocorticoid discontinuation after a median time of 4 (2, 18) weeks, 9% presented with GCA, 12% relapsed due to treatment non-adherence. During the follow-up 6% were diagnosed with malignancies.



Conclusion: (1) With the IR of 46 per 105 adults ≥50 years, PMR is more common as rheumatoid arthritis in Slovenia. (2) A considerable proportion of patients required long-term glucocorticoid treatment, leaving a huge unmet need for safer therapeutic options.

Disclosure of Interests: None declared
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POS1427 CLINICAL COURSE IN PATIENTS WITH INTERSTITIAL PNEUMONIA WITH AUTOIMMUNE FEATURES (IPAF): REAL-LIFE DATA FROM A MULTICENTER ILD REGISTRY

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Background: Several patients with Interstitial Lung Disease show autoimmune characteristics but do not meet the classification criteria for a connective tissue disease. In order to define this condition, the classification of patients with interstitial pneumonia with autoimmune features (IPAF) has been adopted (Fischer's criteria).
Objectives: To describe the sociodemographic, clinical, functional characteristics and therapeutic management of IPAF in clinical practice and to evaluate the incidence rate of functional respiratory impairment.

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