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OP0076 RISK OF DEVELOPING ADDITIONAL IMMUNE MEDIATED MANIFESTATIONS FOR PATIENTS WITH SYSTEMIC ARTHRITIDES

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Background: Patients with the systemic arthritides ankylosing spondylitis [AS], psoriatic arthritis [PsA], rheumatoid arthritis [RA] may develop additional, non-musculoskeletal immune mediated manifestations (nms-IMMs).
Objectives: To compare the risk of developing nms-IMMs between patients with and without an existing AS, PsA, or RA.
Methods: Risk for nms-IMMs was estimated in the MarketScan Commercial Claims and Encounters database (1/2006–9/2015) for case patients with AS, PsA, RA (the "systemic arthritides"). Up to 1,000 controls were matched with replacement by age, sex, state of residence and insurance type to case patients aged 18–64. The systemic arthritides ("cases") were identified by ICD-9 diagnosis codes on ≥2 medical claims ≥30 days apart. A case patient's earliest nms-IMM claim was designated as the index date for the case and all matched controls. Onset of 6 nms-IMDs was identified by the first post-index claim: celiac disease [CE], hidradenitis suppurativa [HS], inflammatory bowel disease [IBD], lupus [SLE], psoriasis [PsO], uveitis [UV]; some of these are well-known manifestations of seronegative spondylarthropathies, like PsA and AS; some are not. All subjects had continuous health plan enrollment for ≥365 days before and after index date. Cumulative incidence of nms-IMMs was assessed at 5 years. Their risk was analyzed with stratified Cox proportional hazards models. Standard errors were adjusted for clustering by case-control match group.
Results: Among 117,794 cases, mean age was 49 years and 71% were female. Mean number of matched controls per case was 664. Across the 3 initial cohorts of patients with AS, PsA, or RA, median follow-up ranged 939–972 days for cases and 931–950 days for controls. Among case patients, 5-year cumulative incidence of any nms-IMM occurrence was 17.5% for AS, 41.8% for PsA, and 14.4% for RA. Patients with nms-IMMs had significantly higher risk than matched controls of developing each, any 1, or any 2 of the 6 manifestations (P≤0.002) (Table).

Initial IMID		Secondary IMID							
		CE	HS	SLE	PsO	UV	IBD	1st of Any 1	2nd of Any 2
AS	N Cases	6,339	6,344	6,282	6,275	6,103	6,263	6,352	6,352
	5-yr Incidence	0.9	0.2	2.9	4.2	7.7	3.4	17.5	1.2
	Hazard Ratio	11.2	3.3	23.7	8.6	54.9	16.0	17.9	24.6
PsA	N Cases	8,382	8,389	8,311	6,111	8,351	8,347	8,406	8,406
	5-yr Incidence	0.5	0.6	2.1	51.0	1.8	1.7	41.8	2.5
	Hazard Ratio	5.3	10.5	14.1	163.2	10.0	7.3	50.9	43.3
RA	N Cases	102,708	102,810	100,414	101,965	102,424	102,318	103,036	103,036
	5-yr Incidence	1.0	0.5	7.5	3.4	1.5	1.8	14.4	1.0
	Hazard Ratio	10.3	8.1	55.3	7.2	8.2	7.6	14.1	14.3

Notes: Hazard ratios from Cox proportional hazards models. Hazard ratios >1 indicate higher risk for case patients relative to controls. All hazard ratios are significant at P<0.002.

Conclusions: The risk of developing non-musculoskeletal manifestations was significantly higher for patients with AS, PsA, and RA than for matched controls. These included not only the well-known manifestations of PsA and AS but also others like manifestations leading to claims for SLE, celiac disease or HS. When managing these systemic arthritides, surveillance for additional immune mediated manifestation is warranted.
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OP0077 PRIMARY PROPHYLAXIS FOR PNEUMOCYSTIS PNEUMONIA IN PATIENTS WITH RHEUMATIC DISEASE AND TREATED WITH PROLONGED, HIGH-DOSE STEROID: A RETROSPECTIVE COHORT STUDY WITH 12-YEAR OBSERVATION

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Background: Pneumocystis pneumonia (PCP) is a significant cause of morbidity and mortality in patients with rheumatic diseases, especially in the case of patients receiving high-dose steroid treatment.
Objectives: To investigate the efficacy and safety of PCP prophylaxis using trimethoprim/sulfamethoxazole (TMP-SMX) in patients with rheumatic disease receiving prolonged, high-dose steroids
Methods: This study includes 1522 cases of prolonged (≥4 weeks), high-dose (≥30mg/day prednisone or equivalent) steroid treatment from 1092 patients with any rheumatic diseases during a 12-year period in a single tertiary referral center in South Korea. Of them, prophylactic TMP-SMX was administered in 262 cases (prophylaxis group) with a mean (SD) duration of 229.0 (272.7) days whereas other 1260 cases received no prophylaxis (control group). Primary outcome was 1-year incidence of PCP between the two groups. Secondary outcomes included PCP-related mortality, ICU admission rate, all-cause in-hospital mortality and incidence of any adverse drug reactions (ADRs) of TMP-SMX. To minimize the baseline imbalance between the two groups, we introduced propensity-score matching and performed the same analysis in the post-matched population as a sensitivity analysis.
Results: Patients in the prophylaxis group were treated more often with secondary immunosuppressive drugs and had a higher proportion of patients with PCP high-risk diseases (ANCA-associated vasculitis and dermatomyositis) and lymphopenia at baseline. Overall, 30 cases of PCP occurred and resulted in death in 11 cases (36.7%). In the prophylaxis group, only one non-fatal case of PCP occurred. One-year PCP incidence was significantly lower in the prophylaxis group (adjusted HRs=0.096 [0.013–0.719]) (Figure). TMP-SMX also significantly reduced the PCP-related mortality (adjusted HR=0.101 [0.001–0.809]) whereas

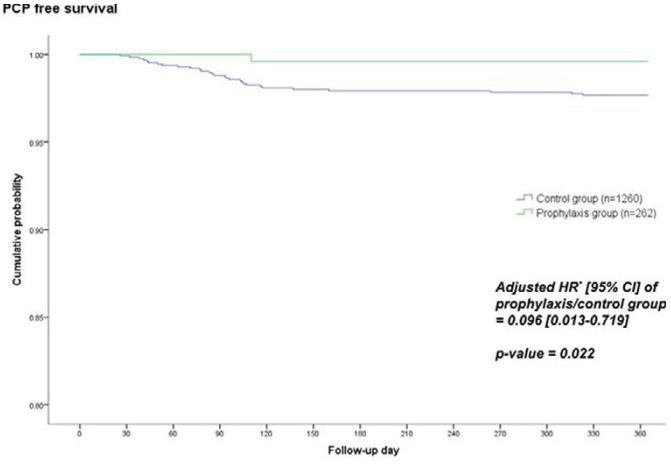

Figure. Kaplan-Meier curve of 1-year incidence of PCP between the two groups

*, HR was adjusted for patient's age, concomitant cyclophosphamide pulse and baseline lymphopenia