Table 2

Stage of global assessment	Data source	axSpA YES, number (%)	axSpA NO, number (%)
2. N = 246	Clinical plus radiography	141 (57.3%)	105 (42.7%)
2. N = 246	Clinical plus radiography after central reader assessment	79 (32.1%)	167 (67.9%)
3. N = 149	Clinical plus radiography plus MRI	70 (47.0%)	79 (53.0%)
3. N = 149	Clinical plus radiography plus MRI after central reader assessment	45 (30.2%)	104 (69.8%)

(18.7%), Crohn's colitis (31.3%), ulcerative colitis (20.3%). MRI was conducted in 149 patients. The number of patients diagnosed with axSpA by the local rheumatologist decreased after radiography and then decreased further after MRI while confidence in the diagnosis progressively increased (Table 1). After central evaluation of all patient data, the number of patients diagnosed with axSpA decreased substantially compared to assessment by local readers (Table 2).

Conclusion: In a setting of undiagnosed back pain and higher risk for axial SpA, imaging is primarily helpful in ruling out SpA and reducing false positives. Despite this, central evaluation raises concerns regarding ascertainment of false positive SpA in routine practice.

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SAT0340

CHARACTERIZATION OF PATIENTS WITH AXIAL SPONDYLOARTHRITIS BY PRESENCE OF ENTHESITIS: DATA FROM THE CORRONA PSORIATIC ARTHRITIS/ SPONDYLOARTHRITIS (PSA/SPA) REGISTRY

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Background: Enthesitis is a common extra-axial manifestation in patients with axial spondyloarthritis (AxSpA)[1,2]; however, not much is known about the prevalence of enthesitis in AxSpA and its impact on disease burden in US real-world settings.

Objectives: This study describes characteristics of patients with AxSpA who had enthesitis vs patients without enthesitis.

Methods: This study included patients aged ≥ 18 years with AxSpA enrolled in the Corrona PsA/SpA Registry between March 2013 and August 2018. Enthesitis at enrollment was assessed via the Spondyloarthritis Research Consortium of Canada (SPARCC) Enthesitis Index. Patient demographics, clinical characteristics, treatment profiles, disease activity, quality of life, and work productivity were compared between patients with and without enthesitis using *t* tests or Wilcoxon rank-sum tests for continuous variables and χ^2 or Fisher's exact tests for categorical variables.

Results: Of 477 patients with AxSpA, 121 (25.4%) had enthesitis. Symptom and disease duration were similar between patients with and without enthesitis. In patients with enthesitis, a higher proportion were female, were more likely to have non-radiographic AxSpA and a history of depression, serious infections, and fibromyalgia vs those without enthesitis (all $P < 0.05$; **Table 1**). Current treatment with biologics or conventional synthetic disease-modifying antirheumatic drug (csDMARD) monotherapy was similar regardless of presence of enthesitis; however, patients with enthesitis were more likely to have prior csDMARD and biologic use, as well as current methotrexate use. Patients with enthesitis had worse disease activity (ASDAS, BASDAI, and BASFI scores; tender and swollen joint counts; physician global assessment; and DAPSA and cDAPSA scores), spinal mobility measures, quality of life (pain, fatigue, HAQ scores, and EQ VAS scores), and greater work impairment than patients without enthesitis (all $P < 0.05$; **Table 2**).

Conclusion: Among patients with AxSpA in this US real-world study, the presence of enthesitis was associated with worse disease activity and quality of life compared to patients without enthesitis.

Table 1. Demographic and Clinical Characteristics and Treatment Profiles in Patients With AxSpA Stratified by Presence of Enthesitis at Enrollment

Characteristic	No Enthesitis (N = 356)	With Enthesitis (N = 121)	*P* Value
Non-radiographic AxSpA, n (%)	56 (15.7)	34 (28.1)	< 0.01
Age, mean (SD) [n], years	47.3 (14.1) [351]	47.3 (13.1) [120]	0.99
Female, n/m (%)	112/351 (31.9)	61/121 (50.4)	< 0.01
White, n/m (%)	319/344 (92.7)	105/119 (88.2)	0.16
Work status, n (%)	n = 351	n = 121	0.30
Full time	214 (61.0)	69 (57.0)	
Part time	22 (6.3)	7 (5.8)	
Disabled	42 (12.0)	24 (19.8)	
Retired	44 (12.5)	12 (9.9)	
Other	29 (8.3)	9 (7.4)	
BMI, mean (SD) [n], kg/m^2	29.8 (6.8) [345]	29.9 (6.9) [120]	0.83
Symptom duration, mean (SD) [n], years	16.8 (11.8) [340]	17.3 (13.1) [118]	0.67
Disease duration, mean (SD) [n], years	10.2 (10.7) [347]	8.2 (10.3) [120]	0.09
Comorbidities, n (%)			
Cardiovascular disease	140 (39.3)	56 (46.3)	0.18
Hypertension	109 (30.6)	37 (30.6)	0.99
Depression	53 (14.9)	29 (24.0)	0.02
Hyperlipidemia	52 (14.6)	21 (17.4)	0.47
Uveitis	40 (11.2)	13 (10.7)	0.88
Metabolic syndrome	27 (7.6)	9 (7.4)	0.96
Diabetes mellitus	20 (5.6)	11 (9.1)	0.18
Psoriasis	22 (6.2)	7 (5.8)	0.88
Serious infections	16 (4.5)	12 (9.9)	0.03
Fibromyalgia	11 (3.1)	11 (9.1)	0.01
Ulcerative colitis	18 (5.1)	3 (2.5)	0.31
Any cancer (excluding NMSC)	16 (4.5)	5 (4.1)	0.87
Crohn disease	14 (3.9)	6 (5.0)	0.63
Prior csDMARD use, n (%)	47 (13.2)	30 (24.8)	< 0.01
Prior biologic use, n (%)	97 (27.2)	47 (38.8)	0.02
Number of prior biologics, n (%)			0.01
0	259 (72.8)	74 (61.2)	
1	68 (19.1)	26 (21.5)	
≥ 2	29 (8.1)	21 (17.4)	
Current biologic use, n (%)	237 (66.6)	84 (69.4)	0.56
Current csDMARD use only (no biologics or tsDMARDs), n (%)	30 (8.4)	12 (9.9)	0.62
Methotrexate (any), n (%)	37 (10.4)	21 (17.4)	0.04

AxSpA, axial spondyloarthritis; BMI, body mass index; csDMARD, conventional synthetic disease-modifying antirheumatic drug; NMSC, nonmelanoma skin cancer; tsDMARD, targeted synthetic disease-modifying antirheumatic drug.

Table 2. Disease Activity, Quality of Life, and Work Productivity in Patients With AxSpA Stratified by Presence of Enthesitis at Enrollment

Characteristic	No Enthesitis (N = 356)	With Enthesitis (N = 121)	*P* Value
ASDAS, mean (SD) [n]	2.5 (1.2) [212]	2.9 (0.9) [79]	< 0.01
BASDAI (0-10), mean (SD) [n]	4.1 (2.4) [340]	5.3 (2.2) [118]	< 0.01
BASFI (0-10), mean (SD) [n]	3.3 (2.7) [338]	4.5 (2.8) [119]	< 0.01
Lateral lumbar flexion (average of left and right), mean (SD) [n], cm	21.5 (18.8) [308]	28.1 (21.1) [116]	0.01
Enthesitis, n (%)	—	121 (100.0)	—
SPARCC Enthesitis Index (1-16), mean (SD) [n]	—	3.9 (2.9) [121]	—
Dactylitis, n (%)	7 (2.0)	4 (3.3)	0.40
Dactylitis count (1-20), mean (SD) [n]	3.6 (3.9) [7]	2.0 (2.0) [4]	0.35
Tender joint count (0-68), mean (SD) [n]	1.3 (4.2) [347]	8.2 (10.8) [121]	< 0.01
Swollen joint count (0-66), mean (SD) [n]	0.5 (2.0) [347]	1.3 (3.3) [121]	< 0.01
DAPSA, mean (SD) [n]	15.6 (8.3) [54]	28.6 (21.1) [12]	0.02
DAPSA group, n (%)	n = 54	n = 12	0.03
Remission	2 (3.7)	1 (8.3)	
Low	25 (46.3)	2 (16.7)	
Moderate	21 (38.9)	4 (33.3)	
High	6 (11.1)	5 (41.7)	
cDAPSA, mean (SD) [n]	12.5 (7.9) [109]	22.1 (18.1) [21]	0.02
Physician global assessment, mean (SD) [n]	23.5 (21.9) [345]	36.6 (21.9) [117]	< 0.01
Physician global assessment of psoriasis, mean (SD) [n]	0.5 (1.0) [70]	0.1 (0.5) [38]	0.03
Patient pain (VAS 0-100), mean (SD) [n]	43.5 (29.5) [331]	57.5 (26.7) [111]	< 0.01
Patient fatigue (VAS 0-100), mean (SD) [n]	45 (28.6) [353]	56.5 (27.5) [121]	< 0.01
Morning stiffness, n (%)	318 (89.3)	117 (96.7)	0.72
< 30 minutes	71 (22.3)	28 (23.9)	
≥ 30 minutes	247 (77.7)	89 (76.1)	
Patient global assessment (VAS 0-100), mean (SD) [n]	54.1 (32.9) [115]	49.8 (29.7) [24]	0.56
HAQ-DI (0-3), mean (SD) [n]	0.6 (0.6) [299]	0.9 (0.7) [89]	< 0.01
EQ VAS (0-100), mean (SD) [n]	66.4 (22.0) [344]	59.7 (22.7) [120]	< 0.01
WPAI domains, mean (SD) [n]			
Current employment, n/m (%)	241/351 (68.7)	75/119 (63.0)	0.26
% Work time missed	5.8 (16.8) [218]	9.0 (18.8) [71]	0.06
% Impairment while working	25.3 (24.4) [230]	38.3 (27.4) [71]	< 0.01
% Overall work impairment	27.6 (26.6) [210]	41.4 (29) [69]	< 0.01
% Activity impairment	35.6 (29.3) [343]	49.8 (29.5) [121]	< 0.01

ASDAS, Ankylosing Spondylitis Disease Activity Score; AxSpA, axial spondyloarthritis; BASDAI, Bath Ankylosing Spondylitis Disease Activity Index; BASFI, Bath Ankylosing Spondylitis Functional Index; cDAPSA, Clinical Disease Activity Index for Psoriatic Arthritis; DAPSA, Disease Activity Index for Psoriatic Arthritis; EQ VAS, EuroQol visual analogue scale; HAQ-DI, Health Assessment Questionnaire Disability Index; SPARCC, Spondyloarthritis Research Consortium of Canada; VAS, visual analog scale; WPAI, Work Productivity and Activity Impairment Questionnaire.

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SAT0341 THE PREVALENCE OF RENAL FAILUREIN A PROSPECTIVE AXIAL SPONDYLOARTHRITIS COHORT AND POSSIBLE ASSOCIATED FACTORS

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Background: Extra-articular manifestations and comorbidities are significant complications in the evolution of patients with spondyloarthritis (SpA). The presence of renal failure (RF) is a multifactorial comorbidity that has been shown to be associated with this disease, and its prevalence has been reported around 5% (COMOSPA[1]). There are no prevalence studies in our environment.
Objectives: To determine the prevalence and possible factors associated with RF in patients with axial spondyloarthritis (axSpA).
Methods: Data was retrieved from a prospective database designed for the monitoring of patients with SpA from a large teaching hospital. We only included patients with axSpA. Demographic and clinical data were recorded, as well as possible risk factors associated with RF: arterial hypertension (AHT), smoking status, Diabetes (DM), Dyslipidemia (DL), NSAIDs use and renal function from last test available (we considered RF when eGFR<60 mL/min).
Continuous data were compared with Student t-test if the variables presented normal distribution (previous Shapiro-Wilk test) or Mann Whitney U test otherwise. Chi-square or Fisher test was performed if the variable was categorical.
Results: 339 patients were included. 73.2% were male with a mean age of 56.68 (±14.8) years and a mean age of onset of 32.0 (±11.4) years. The mean disease duration was 32.8 (±11.4) years. 83.7% were HLAB27+. The clinical variables for the whole cohort were: BASDAI 3.56 (±2.13), BASFI 3.74 (±2.65), CRP 5.61 (±6.92) and ESR 2.28 (±0.89). The following risk factors were registered: smokers 58.3%, AHT 33.3%, DL 31.3% and NSAID use of 34.6%. 27.4% of patients were receiving biologic therapy.
41 patients (12.1%) presented RF criteria. Comparison between two groups is shown in table 1. A statistically significant association with RF was found in age, sex, AHT, DL, no use of NSAIDs, higher BASFI and ASDAS indexes as well as ESR value.
Conclusion: There is a substantial prevalence of RF in patients with axSpA in our cohort. We should maximise our awareness of RF in old patients, those suffering from AHT and DLP, as well as subjects with high BASFI, ASDAS and ESR values.

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Table 1. Comparative analysis of patients with RF and recorded variables

Variables	RF (n=41)	No RF (n=298)	P-value
Age, mean (SD)	71.12 ± 7.8	54.64 ±14.52	<0.0001*
Male	87.8%	71.1%	0.024*
Arterial hypertension	82.9%	26.5%	<0.0001*
Dyslipidemia	46.3%	29.2%	0.026*
Diabetes Mellitus	19.5%	9.7%	0.103
BMI, mean (SD)	28.45 ± 5.72	26.36 ± 4.39	0.065
Smokers	69.7%	56.9%	0.159
HLA B27(+)	80%	84.2%	0.5
axSpA phenotype	100%	91.6%	0.056
- **AS**	0%	8.4%	
- **non-Rx SpA**			
Disease duration, mean (SD)	34.83 ± 13.71	22.84 ± 15.35	<0.0001*
Age at diagnosis, median (IQR)	33 ± 22	30 ± 16	0.138
NSAID (>25%)	22%	36.4%	0.003*
Biologic	24.4%	27.9%	0.641
BASDAI	4.005 ± 2.1	3.5 ± 2.13	0.156
BASFI	5.2 ± 2.56	3.5 ± 2.61	<0.0001*
ASDAS-CRP	2.57 ± 0.87	2.22 ± 0.92	0.04*
ASDAS-ESR	2.66 ± 0.9	2.23 ± 0.87	0.01*
CRP, median (IQR)	3.8 ± 6.65	3.0 ± 5.65	0.052
ESR, median (IQR)	15 ± 23.3	8 ± 13	0.008*

*p<0.05

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SAT0342 RISK FACTORS FOR ARTHROPATHY IN ULCERTIVE COLITISPATIENTS AFTER TOTAL COLECTOMY; A RETROSPECTIVE, A SINGLE CENTER STUDY

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Background: Ulcertive colitis (UC) is associated with a variety of extraintestinal manifestations (EIMs) that may have negative effects on performance status and quality of life. EIMs frequently affect musculoskeltal systems (peripheral and axial arthropathies), skin, hepatobiliary tract and eyes[1,2]. Previous studies showed that peripheral and axial arthropathies were seen 4-23% patients with UC and they tend to have peripheral rather than axial arthropathies[3]. UC is generally thought to become in remission when patients undergo total colectomy. However, in clinical practice, patients often suffered from arthropathy which is thought as EIMs even after total colectomy. The distribution and risk factors for the occurrence of peripheral and axial arthropathies among UC patients after total colectomy have not been investigated yet.
Objectives: In this study, we aimed to clarify frequency and distribution of arthropathy and to investigate risk factors for developing arthropathy among UC patients after colectomy.
Methods: In this retrospective, single center, observational study, we investigated the backgrounds and risk factors for arthropathy using patients underwent total colectomy from January 2007 to February 2016 in Mie University. As backgrounds, age, sex, presence and distribution of arthropathy, other EIMs, and duration after colectomy, clinical activity (mild/moderate/severe), Matts classification (grade 1+2 vs 3+4), presence of massive hemorrhage and toxic megacolon, previous therapies for UC were collected from electronic medical records. Arthropathy was defined as joint pain or swelling without definite cause which was improved by using glucocorticoid. Background factors were described as median (IQR) for continuous variables or as percentage (%) for categorical variables and difference was analyzed by Wilcoxon for continuous variables and by chi-square for categorical variables. Factors with p-value < 0.1 in univariate analyses were included in multivariate logistic regression analysis for risk of developing arthropathy.
Results: We enrolled 219 patients (female; 40.2% and median age at operation; 38.0 [27.0, 53.0] years). Among them, 40 (18.3%) patients had arthropathy, peripheral type in 23 (57.5%), axial type in 3 (7.5%), mixed type in 14 (35.0%). Duration from operation to onset of arthropathy was 0.7 [0.4, 1.2] years. The risk factors for developing arthropathy by univariate analyses were Matts classicification (grade 3+4 vs 1+2) (p < 0.05), follow up periods (p < 0.001), presence of other EIMs (p < 0.001), ileal pouchitis (p < 0.01), but previous treatment of biologics was not significant (p = 0.84). Table 1 showed the risk factors for developing arthropathy by multivariate logistic regression analysis using age, sex,