Conclusion: Therapy with TNF alpha inhibitor golimumab for 24 months in AS patients with coxitis was accompanied with statistically significant improvement of clinical scores with primary endpoint achieved (mean BASFI change -2.5 at 12 months), improvement of MRI and US findings without obvious structural progression measured with BASRI-hip score compared to baseline.

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POS0904

FACTORS ASSOCIATED WITH SWITCHING FROM ONE ANTI-TNF AGENT TO ANOTHER ANTI-TNF, OR IL17 AGENT IN PATIENT WITH ANKYLOSING SPONDYLITIS

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Background: A recent study examining Commercial Claims Insurance database found that many patients with ankylosing spondylitis (AS) do not remain on their initial TNF inhibitor two years after initiation, particularly women and those taking opioids.

Objectives: To examine factors associated with switching from one TNF inhibitor (i)agent to either another TNFi, IL-17i or JAKi over time (at <2years and >2 years) in a longitudinal cohort of AS patients.

Methods: Patients enrolled in the Prospective Study of Outcomes in AS (PSOAS), an observational longitudinal study of predictors of AS severity operative since 2002-2020 including over 1250 patients meeting modified New York criteria. Data collected included age, gender, ethnicity, HLA-B27 status, disease activity (BASDAI or ASDAS), erythrocyte sedimentation rate (ESR), C-reactive protein (CRP), disease severity (functional (BASFI) or radiographic (mSASSS)), comorbidities, smoking, exercise, disease duration, depression (either by self report or by the Center for Epidemiologic Studies Depression Scale (CES-D) and other medication usage (NSAIDs, including the NSAID index, nonbiologic DMARDs, opioids, anti-depressants, anxiolytics and hypnotics). Logistic regression models were built to identify clinical and sociodemographic characteristics associated with medication switching to another TNFi, IL-17i, or other biologic therapy (another TNFi, IL-17i, or JAKi) within 2 years and after 2 years of initiation).

Results: Of those patients in PSOAS who had at least two years of follow-up, 496 were prescribed anti-TNF, 34 anti-IL-17 and 3 anti-JAK agents. According to the multinomial logistic regression analysis, patients who switched from their original TNFi to another TNFi, IL-17i or JAKi within two years after initiating their original TNFi were more likely to be older, have higher baseline subjective disease activity (BASDAI), less radiographic severity by mSASSS, exercise > 120 minutes/week and less likely to be currently smoking. Patients who switched after two years were less likely to be depressed, had shorter disease duration, had greater subjective disease activity, were more likely to be exercising > 120 minutes/week, and had more comorbidities.

Conclusion: Different factors were encountered in AS patients who switched from their initial TNFi to another TNFi, IL-17i or JAKi within 2 years versus after 2 years of treatment.

Table 1. Factors Associated With Switching From One TNFi To A Second TNFi or IL-17i or JAKi Before or After Two Years Based On Multinomial Logistic Regression Model (N=496 Patients)

Variable	Switched within 2 years vs. not switched	p-value*	Switched after 2 years vs. not switched	p-value*
Gender (Male vs. Female)	0.99 (0.637, 1.549)	0.98	0.95 (0.528, 1.719)	0.87
HLA-B27 (+ vs. -)	0.99 (0.639, 1.523)	0.95	0.66 (0.365, 1.192)	0.17
Depression (CESD ≥ 16 or self-report) (Yes vs. No)	0.99 (0.676, 1.445)	0.95	0.35 (0.182, 0.672)	0.002
Disease duration at baseline (≥20 vs. <20 years)	0.72 (0.485, 1.062)	0.10	0.27 (0.146, 0.491)	<0.001
Age at baseline (≥40 vs. <40) (years)	2.00 (1.291, 3.101)	0.002	1.23 (0.693, 2.193)	0.48
CRP (≥0.8 vs. <0.8)	1.94 (1.230, 3.056)	0.004	0.90 (0.454, 1.789)	0.77
BASFI (≥40 vs. <40)	1.34 (0.852, 2.118)	0.20	0.87 (0.450, 1.688)	0.68
BASDAI (≥4 vs. <4)	1.73 (1.064, 2.797)	0.03	2.31 (1.202, 4.427)	0.01
NSAID index (≥50 vs. <50)	1.32 (0.822, 2.128)	0.25	0.83 (0.437, 1.586)	0.58
NSAIDs used (Yes vs. No)	0.84 (0.534, 1.309)	0.43	0.85 (0.479, 1.510)	0.58
Exercise (≥120 vs. <120) (minutes/week)	1.95 (1.396, 2.731)	<0.001	1.66 (1.057, 2.613)	0.03
ASDAS (≥3 vs. <3)	0.78 (0.454, 1.356)	0.39	1.07 (0.478, 2.399)	0.87
Number of comorbidities (≥2 vs. <2)	1.40 (0.997, 1.951)	0.05	1.63 (1.029, 2.575)	0.04
mSASSS (≥4 vs. <4)	0.63 (0.421, 0.957)	0.03	0.81 (0.474, 1.392)	0.03
Current smoker (Yes vs No)	0.69 (0.385, 1.225)	<0.001	0.79 (0.297, 2.076)	0.20

*p-values calculated based on multinomial logistic regression model when switching is defined as being prescribed a second TNFi or taking IL-17i or JAKi before or after 2 years from first TNFi initiation

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POS0905

ACHIEVEMENT OF PARTIAL REMISSION AND INACTIVE DISEASE IN UPADACITINIB-TREATED PATIENTS WITH ANKYLOSING SPONDYLITIS

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Background: Assessment of SpondyloArthritis international Society (ASAS) response criteria and AS Disease Activity Score (ASDAS) are both commonly used, rigorous composite indices consisting of components with relevance to patients. Clinically meaningful thresholds for these measures have been defined to reflect partial remission (PR), inactive disease (ID), and low disease activity (LDA).

Objectives: To study the association of ASAS PR and ordinal ASDAS disease categories (including ASDAS ID, which is the most stringent category of this composite score) in upadacitinib (UPA)-treated patients with AS.

Methods: In the SELECT-AXIS 1 (NCT03178487) study, biologic DMARD naïve-patients (pts; ≥18 y) with active AS and intolerance/contraindication or inadequate response to ≥2 NSAIDs were randomized 1:1 to UPA 15mg once daily (QD) or placebo (PBO).¹ At wk 14, pts entered an open-label extension (OLE) of UPA 15mg QD; pts randomized to PBO were switched to UPA. This post hoc analysis assessed the responsiveness of individual ASAS and ASDAS core components among pts who achieved ASAS PR. The association of ASAS PR with achievement of ASDAS ID (ASDAS <1.3), ASDAS LDA (ASDAS <2.1 but ≥1.3) or ASDAS high disease activity (HDA)/very HDA (VHDA) (ASDAS ≥2.1 for HDA/VHDA) was also assessed by measures including Youden index, distance to perfect point, and sensitivity/specificity