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OP0237

INTERLEUKIN-17 OR TNF BLOCKADE IN PATIENTS WITH AXIAL SPONDYLOARTHRITIS AFTER WITHDRAWAL OF AT LEAST ONE TNF INHIBITOR

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Background: Secukinumab (SEC), an interleukin-17A inhibitor, is approved for the treatment of ankylosing spondylitis (AS) and has been integrated into the current treatment recommendations of patients with axial spondyloarthritis (axSpA) as an alternative to tumor necrosis factor inhibitors (TNFi). The optimal use of one mode of action over the other remains unclear and longitudinal real-life data are lacking to date.

Objectives: To compare drug survival of SEC versus TNFi in axSpA patients having previously stopped at least one TNFi in a large prospective cohort.

Methods: Patients with a clinical diagnosis of axSpA in the Swiss Clinical Quality Management cohort were included if they had previously stopped treatment with at least one TNFi, initiated therapy with either SEC or a next TNFi after approval of SEC and had a baseline clinical visit. Drug survival was evaluated by Cox proportional hazards models adjusted for sex, age, Bath ankylosing spondylitis disease activity index (BASDAI), Maastricht ankylosing spondylitis enthesitis score (MASES), proportion of patients with elevated CRP, number of previous TNFi and interaction between mode of action and number of previous TNFi.

Results: Baseline characteristics of 382 axSpA patients included (N=107 for SEC and N=275 for next TNFi) are shown in Table 1. The proportion of patients with ≥ 2 TNFi administered previously was significantly higher in the SEC group. Patients starting SEC had higher baseline disease activity, more enthesitis and greater impairment of spinal mobility, function and quality of life. A history of uveitis was more prevalent in the TNFi group. No differences between the groups could be detected with regards to the reason for discontinuation of the previous TNFi. Unadjusted median (interquartile range) drug maintenance was 1.1 (0.9; 1.3) years for SEC and 2.0 (1.7; 2.2) years for TNFi ($p=0.03$). The adjusted hazard ratio to stop SEC vs. TNFi in patients without missing data (N=233, 61%) was 1.05 (95% CI 0.42; 2.61; $p=0.91$) (Table 2).

Table 1. Baseline characteristics of axSpA patients having stopped ≥ 1 TNFi at start of a next biologic after approval of SEC in Switzerland, stratified by the mode of action.

Parameter	N 382	TNFi N=275	SEC N=107	p
Male sex, %	374	43.3	43.0	1.00
Age, years	382	45.3 (12.6)	45.7 (11.5)	0.81
Symptom duration, years	369	14.0 (10.8)	14.8 (11.3)	0.47
HLA-B27 positive, %	338	58.9	60.0	0.90
BASDAI	276	4.8 (2.1)	6.1 (1.9)	<0.001
ASDAS	239	2.7 (0.9)	3.5 (1.0)	<0.001

Elevated CRP, %	336	31.5	41.0	0.13
BASFI	266	3.0 (2.4)	4.9 (2.6)	<0.001
BASMI	205	1.8 (1.6)	2.6 (1.9)	0.01
Number of swollen joints	348	1.0 (3.0)	1.4 (3.7)	0.32
MASES	352	2.8 (3.3)	3.9 (3.9)	0.02
Uveitis ever, %	369	16.9	8.7	0.05
Psoriasis ever, %	366	9.8	13.0	0.45
Inflammatory bowel disease ever, %	371	10.6	4.7	0.10
≥ 2 previous TNFi used, %	382	37.8	77.6	<0.001
Ineffectiveness of previous TNFi, %	334	60.7	67.3	0.24

Table 2. Multivariable adjusted cox regression model for drug survival of next biologic DMARD.

	HR	95% CI	p
Secukinumab vs. TNFi	1.05	0.42; 2.61	0.91
Age	1.01	0.99; 1.03	0.42
Female sex	1.60	0.98; 2.61	0.06
BASDAI	1.15	1.02; 1.31	0.03
Elevated CRP	1.15	0.71; 1.86	0.56
Number of previous TNFi	0.83	0.61; 1.13	0.23
Interaction between bDMARD mode of action and number of previous TNFi	1.20	0.83; 1.73	0.34

Conclusion: SEC was predominantly initiated in axSpA after use of at least 2 TNFi. Patients starting SEC had a higher mean disease activity than patients starting a next TNFi. Adjusted drug survival after previous withdrawal of TNFi was comparable for SEC or a next TNFi.

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OP0238

WORK PRODUCTIVITY AND ACTIVITY IMPAIRMENT AMONG PATIENTS WITH ACTIVE ANKYLOSING SPONDYLOARTHRITIS AND TREATED WITH IXEKIZUMAB FOR 16 WEEKS: RESULTS FROM COAST-V AND COAST-W

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Background: Axial spondyloarthritis (axSpA) negatively impacts work productivity and IL-17A antagonists, such as ixekizumab (IXE), may improve paid and unpaid work productivity.^{1,2} Also, it is unknown if improvements with IXE differ between biologic-naïve and TNF inhibitor (TNFi) experienced patients.

Objectives: We investigated the effect of IXE treatment for 16-weeks on work productivity and activity impairment among patients with radiographic axSpA (r-axSpA) using data from the biologic-naïve and TNFi-experienced patients receiving either placebo (PBO), IXE, or adalimumab (ADA; if biologic-naïve).

Methods: Both COAST-V and COAST-W investigated the efficacy and safety of IXE among patients with r-axSpA that either were biologic-naïve patients (COAST-V, NCT02696785) or TNFi-experienced patients (COAST-W, NCT02696798), as defined by prior inadequate response or intolerance to 1 or 2 TNFi. Patients were required to have a diagnosis of axSpA. Patients fulfilled ASAS criteria for r-axSpA and mNY criteria for ankylosing spondylitis. Active disease was defined by BASDAI ≥ 4 and back pain ≥ 4 on a numeric ratings scale (NRS).^{1,2} Full eligibility criteria were previously reported.^{1,2} Patients were treated with placebo (PBO), 40-mg adalimumab (ADA) every 2 weeks (Q2W; COAST-V only), 80-mg IXE Q2W (IXEQ2W) or every 4 weeks (IXEQ4W) for 16 weeks. Work productivity was investigated using the Work Productivity and Activity Impairment Questionnaire for Ankylosing Spondylitis (WPAI:SpA). Individual and integrated