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POS0909

IXEKIZUMAB IMPROVES SIGNS, SYMPTOMS AND QUALITY OF LIFE OF ANKYLOSING SPONDYLITIS IN PATIENTS IRRESPECTIVE OF HLA-B27 STATUS: POOLED RESULTS FROM THE COAST-V AND COAST-W TRIALS

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Background: Human leukocyte antigen-B27 (HLA-B27) is found in most patients (pts) with ankylosing spondylitis (AS). Although a subset of pts with AS are HLA-B27 negative (NEG), ensuring treatment efficacy in this subpopulation is important.

Objectives: This analysis evaluated the efficacy of ixekizumab (IXE), a high-affinity monoclonal antibody selectively targeting interleukin-17A, in AS pts who are either HLA-B27 positive (POS) or NEG.

Methods: COAST-V (NCT02696785) and COAST-W (NCT02696798) were 2 phase 3, multicenter, randomized, double-blind, PBO-controlled trials investigating the efficacy of 80-mg IXE administered every 4 weeks (Q4W) and every 2 weeks (Q2W) in pts naïve to biological disease-modifying anti-rheumatic drugs (bDMARDs; COAST-V) and in those who were inadequate responders or intolerant to 1 or 2 tumor necrosis factor inhibitors (TNFi; COAST-W). Only data from pts randomized at baseline to PBO, IXE Q4W or Q2W in both trials who met per protocol eligibility criteria were integrated and stratified based on HLA-B27 status (POS, NEG) for an *ad hoc* subgroup analysis. Efficacy was assessed using the Assessment of Spondyloarthritis International Society 40 (ASAS40), Bath Ankylosing Spondylitis Disease Activity Index 50 (BASDAI50) and Short Form 36 Physical Component Scores (SF-36 PCS). Missing data were imputed by non-responder imputation (NRI) for binary measure and by modified baseline observation carried forward (mBOCF). Data from PBO was reported up to Week 16 and for pooled IXE Q4W and Q2W up to Week 52.

Results: This analysis includes pts with AS who are HLA-B27 POS (N=453; PBO=155, IXE=298) or NEG (N=62, PBO=21, IXE=41). Overall, more pts were male (82.6%, POS; 77.4%, NEG), and for IXE treated pts, the duration of disease since r-axSpA diagnosis was 10.3 (SD=9.1) and 6.9 (SD=5.6) years, among POS and NEG pts respectively (Table 1). Among IXE treated patients,

Table 1. Baseline Characteristics by HLA-B27 Positive and Negative Status

	Positive HLA-B27		Negative HLA-B27	
	PBO (N=155)	IXE (N=298)	PBO (N=21)	IXE (N=41)
Male, n (%)	133 (85.8)	241 (80.9)	18 (85.7)	30 (73.2)
Age of r-axSpA onset (yr), mean (SD)	25.2 (9.28)	26.3 (8.38)	35.4 (8.43) [‡]	34.6 (10.32) [‡]
Duration of symptoms since r-axSpA onset (yr)	18.7 (11.82)	17.1 (10.38)	16.0 (9.69)	15.9 (12.40)
C-Reactive protein (mg/L), mean (SD)	16.7 (22.43)	16.9 (25.50)	18.1 (21.69)	13.7 (14.38)
ASDAS score, mean (SD)	4.0 (0.78)	4.0 (0.83)	4.3 (0.76)	4.1 (0.73)
BASDAI score, mean (SD)	7.1 (1.25)	7.2 (1.37)	7.6 (1.31) [*]	7.4 (1.41)
SF-36 PCS, mean (SD)	33.7 (7.50)	33.2 (7.63)	34.1 (8.28)	31.4 (7.67)

Abbreviations: ASDAS, Assessment of Spondyloarthritis International Society 40; BASDAI, Bath Ankylosing Spondylitis Disease Activity Index; HLA-B27, Human leukocyte antigen-B27; IXE, pooled ixekizumab every 2 weeks and every 4 weeks; N, total number of patients in group; n, number of patients in category/subgroup; PBO, placebo; r-axSpA, axial spondyloarthritis; SD, standard deviation; SF-36 PCS, Short Form 36 Physical Component Scores; yr, years. *p*-value: vs. HLA-B27 positive: ^{*}≤0.05, [‡]<0.0001

the mean age of HLA-B27 NEG pts was approximately 7-8 years older than HLA-B27 POS pts. At Week 16, 39.6% (n=118/298) of HLA-B27 POS and 29.3% (n=12/41) of HLA-B27 NEG pts achieved ASAS40, and 34.6% (n=103) of HLA-B27 POS and 17.1% (n=7) of HLA-B27 NEG pts achieved BASDAI50; improvements were seen as early as Week 1 and sustained or improved up to Week 52. The mean baseline SF-36 PCS was 33.2 (SD=7.63) for HLA-B27 POS and 31.4 (SD=7.67) for HLA-B27 NEG pts. At Week 16, the mean change from baseline in SF-36 PCS was 7.3 (SD 7.6) for HLA-B27 POS and 3.7 (SD=6.83) for HLA-B27 NEG pts. Improvements were sustained to Week 52 (Figure 1).

Conclusion: IXE improves signs, symptoms, patient-reported outcomes and health-related quality of life in HLA-B27 POS and NEG pts with AS, however the HLA-B27 POS pts have a faster and more robust response than HLA-B27 NEG pts.

Figure 1. Proportion of patients achieving ASAS40 by HLA-B27 Positive and Negative Status in patients randomized to placebo up to Week 16 and ixekizumab up to Week 52

Abbreviations: ASAS40, Assessment of Spondyloarthritis International Society 40; HLA-B27, Human leukocyte antigen-B27; IXE, pooled ixekizumab every 2 weeks and every 4 weeks; NRI, nonresponder imputation

Figure 1. Comparisons done using t-test and chi-square test for continuous and categorical variables.

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POS0910

EVALUATION OF THE NONSTEROIDAL ANTI-INFLAMMATORY DRUG-SPARING EFFECT OF SECUKINUMAB IN PATIENTS WITH ANKYLOSING SPONDYLITIS: RESULTS OF THE MULTICENTER, RANDOMISED, DOUBLE-BLIND, PHASE IV ASTRUM-TRIAL

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