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AB0549

PREDICTIVE FACTORS FOR SWITCHING IN PATIENTS WITH PSORIATIC ARTHRITIS UNDERGOING ANTI-TNFA, ANTI-IL12/23 OR ANTI-IL17 DRUGS: A FIFTEEN-YEAR MONOCENTRIC REAL-LIFE STUDY

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Background: Biological Disease-Modifying Anti-Rheumatic Drugs (bDMARDs) targeting Tumor Necrosis Factor (TNF) alpha, Interleukin (IL) 12/23 and IL17, have been approved for Psoriatic Arthritis (PsA) treatment, in this chronological order.

Objectives: The aims of our study were to evaluate 1) predictors of first bDMARD failure, including mechanism of action 2) factors associated to failure of multiple (>=2) therapies.

Methods: Consecutive patients attending our Rheumatology Unit, classified as PsA according to CASPAR criteria and beginning treatment with bDMARDs in the period 2004-2020, were enrolled. Disease characteristics, previous/ongoing treatments, comorbidities and follow-up duration were recorded. Demographic, clinical and laboratory data, disease-activity and functional indexes [including Disease Activity in Psoriatic Arthritis (DAPSA), PASI (Psoriasis Area and Severity Index) and Health Assessment Questionnaire (HAQ)], were recorded at baseline and yearly and were compared between switchers (>=1 switch/swap) and non-switchers. Date and reason for switching were collected. Effectiveness was evaluated over-time with descriptive statistics. A multivariable Cox-Proportional-Hazard (PH) model was built to evaluate the influence of mechanism of action (anti-TNFalpha/anti-IL12/23/anti-IL17) and of negative prognostic factors for drug response on time to first bDMARD discontinuation. Furthermore, a multivariable logistic regression model was built to assess the association between negative prognostic factors for drug response (independent variables) and failure of >=2 bDMARDs ("multifailure", outcome). Kaplan-Meier curves were used to assess differences in time-to-first bDMARD discontinuation according to the targeted cytokine. P values <=0.05 were considered significant. Infections and adverse events were recorded.

Results: Our study included 264 patients, 117 (44.32%) females, mean age 56±12 years, mean PsA duration 15±3 years; 117 (44.32%) switched bDMARDs at least once. Switchers were mostly females, with higher PASI and worse HAQ at baseline (Figure 1). Mean time-to-first bDMARD discontinuation was 72 months; 2-year and 5-year retention rate was 75% and 60%, respectively. Survival curves for anti-TNFalpha/anti-IL12/23/anti-IL17 were similar (log-rank test=0.83; p=0.66). Main reasons for switching were inefficacy (79) and adverse events (38). The Cox PH model showed that female sex was independently associated to a higher risk of first bDMARD discontinuation (HR=2.39; 95%CI:1.50-3.81), while initiating therapy before 2015 was protective (HR=0.40; 95%CI:0.22-0.73). Other independent variables, including mechanism of action (HR=0.76; 95%CI:0.30-1.74 for anti-IL17; HR=0.53; 95%CI 0.15-1.86 for anti-IL12/23; reference: anti-TNFalpha), age (HR=1.00; 95%CI:0.99-1.03), baseline DAPSA (HR=0.98; 95%CI:0.96-1.00), PASI (HR=0.95; 95%CI:0.86-1.04), HAQ (HR=1.29; 95%CI:0.91-1.83), Body Mass Index BMI (HR=1.02; 95%CI:0.98-1.07) and comorbidities (HR=1.10; 95%CI:0.92-1.31) were not associated to the outcome. In the logistic regression model, only female sex was significantly associated to failure of >=2 therapies (OR=1.99, 95%CI:1.07-3.69); bDMARD mechanism of action, age, and initiating therapy before 2015 were instead not independently associated.

Conclusion: Survival rate was good for anti-TNFalpha and other bDMARDs. Female sex was a predictor of first bDMARD discontinuation, unlike mechanism of action, comorbidities and BMI.

Baseline characteristics of the monocentric cohort at the beginning of bDMARDs, comparison between switchers and non-switchers.

Characteristics	Non-switchers N=147	Switchers N=117	p-value
Female sex	48 (32.65%)	69 (58.97%)	<0.0001
Age (years)	56.0 (46.0-65.0)	57.0 (49.0-65.0)	0.06
Psoriatic arthritis duration (years)	15.0 (10.0-22.0)	15 (10.0-21.0)	0.94
Psoriasis duration (years)	25.0 (17.0-36.0)	24.0 (15.0-34.0)	0.67
Family history	9 (6.12%)	14 (11.96%)	0.07
Psoriasis	127 (86.39%)	102 (87.18%)	0.73
Inflammatory bowel disease	1 (0.68%)	3 (2.56%)	0.22
Uveitis	4 (2.72%)	0 (0%)	0.11
Tender joints (66/68 joint count)	5.0 (2.0-8.0)	4.0 (2.0-8.0)	0.44
Swollen joints (66/68 joint count)	2.0 (0.0-4.0)	2.5 (0.0-6.0)	0.60
VAS pain 0-10	7.0 (5.3-8.0)	7.0 (5.0-7.6)	0.90
VAS global health 0-10	6.0 (4.5-7.0)	6.5 (5.0-8.0)	0.35
CRP mg/L	6.0 (3.0-15.5)	5.5 (2.9-12.0)	0.37
ESR mm/h	17.0 (8.0-34.0)	19.0 (9.0-36.0)	0.42
DAPSA	20.2 (15.1-27.9)	18.9 (15.3-25.7)	0.67
Leeds Enthesitis Index (0-6)	0.0 (0.0-1.0)	0.0 (0.0-1.0)	0.69
Dactylitis (presence/absence)	18 (12.24%)	15 (12.85%)	0.23
HAQ	0.5 (0.25-1.0)	0.62 (0.25-1.5)	0.046
PASI 0-72	1.0 (0.3-3.0)	1 (0.0-2.7)	0.047
Smoking			
Non-smokers	91 (61.90%)	83 (70.94%)	0.46
Ever smokers	56 (38.10%)	34 (29.06%)	
BMI	25.3 (22.9-27.7)	25.4 (23.4-27.6)	0.86
Updated Charlson Comorbidity Index	1 (0-3)	1 (0-7)	0.79
Association therapy with a csDMARDs	56 (38.10%)	39 (33.33%)	0.61
First line biological drug			
Anti-TNFalpha	120 (81.63%)	106 (90.59%)	-
Anti-IL12/23	15 (10.20%)	8 (6.84%)	-
Anti-IL17	12 (8.16%)	3 (2.56%)	-

Legend. VAS=Visual Analogue Scale; CRP=C-reactive Protein; ESR=Erythrocyte Sedimentation Rate; DAPSA=Disease Activity in Psoriatic Arthritis; HAQ=Health Assessment Questionnaire; PASI=Psoriasis Area and Severity Index; BMI=Body Mass Index; csDMARD=conventional synthetic Disease-Modifying Anti-Rheumatic Drugs. Significant results are highlighted in bold. Continuous variables are shown as medians and interquartile range. p<0.05

Figure 1.

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AB0550

EFFICACY OF UPADACITINIB IN PATIENTS WITH ACTIVE PSORIATIC ARTHRITIS AND A LOW OR HIGH SWOLLEN JOINT COUNT: A SUBGROUP ANALYSIS OF 2 PHASE 3 STUDIES (SELECT-PsA 1 AND SELECT-PsA 2)

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Background: Although most patients with psoriatic arthritis (PsA) enrolled in clinical trials have polyarticular arthritis, patients in clinical practice may present with oligoarthritis. Data on the efficacy of Janus kinase inhibitors in patients with PsA with low joint counts are limited.