Lilly, MSD, Pfizer, Roche, Sanofi Aventis, UCB, Anja Strangfeld Speakers bureau: AbbVie, BMS, Pfizer, Roche, Sanofi-Aventis
DOI: 10.1136/annrheumdis-2020-eular.1210

SAT0438

REAL-WORLD TREATMENT PERSISTENCE WITH BIOLOGIC DISEASE MODIFYING ANTIRHEUMATIC DRUGS AMONG GERMAN PATIENTS WITH PSORIATIC ARTHRITIS

P. Sewerin¹, K. Borchert², D. Meise², J. Mahlich^{3,4}. ¹Heinrich-Heine University, Department for Rheumatology, Duesseldorf, Germany; ²Xcenda GmbH, Hannover, Germany; ³Janssen-Cilag GmbH, Neuss, Germany; ⁴Heinrich-Heine University, Duesseldorf Institute for Competition Economics (DICE), Duesseldorf, Germany

Background: Persistence rates of biologic disease modifying antirheumatic drugs (bDMARDs), which refer to the duration of time from initiation to discontinuation or switch of therapy, have been shown to vary considerably depending on the country, types of health centers, as well as the specific drug being investigated. Evidence on treatment persistence of psoriatic arthritis (PsA) patients in Germany is scarce.

Objectives: Our aim was to study drug survival of bDMARDs in a German real-world cohort of adult biologic-naïve psoriatic arthritis patients.

Methods: We utilized the German "Institut für angewandte Gesundheitsforschung Berlin" (InGef) research database consisting of about 4 million covered lives structured to represent the German population in terms of age and gender according to the Federal Office of Statistics (DESTATIS). Thereof, 2.9 million patients were continuously enrolled in the study period spanning from January 1st, 2013 and December 31st, 2018. For the analysis of persistence rates, the study population was identified based on the International Classification of Diseases, German Modification (ICD-10-GM) and claims records of biologic prescriptions based on ATC codes. Adult patients who had a diagnosis of psoriasis arthritis (L40.5 in combination with M07.0 or M07.1 or M07.2 or M07.3) in the inpatient or outpatient setting, and a claims record of biologic treatment licensed for psoriasis arthritis between January 1st, 2014 to December 31st, 2017 were included. Patients with Crohn's disease (K50), ulcerative colitis (K51), ankylosing spondylitis (M45), and rheumatoid arthritis (M05-M07) were excluded. Biologic-naïve patients were identified as those who had no prior record of bDMARDs prescription during the 12 months before the index date ('washout'). The index date was defined as the first claim for a biologic agent. Non-persistence occurred if a treatment gap exceeding the days of supply plus 60 days or a switch to a bDMARD other than the index therapy was observed. Days of supply were calculated based on the daily defined doses defined by the WHO for the respective bDMARDs. Kaplan-Meier curves were plotted to show the persistence of different biologics. The log-rank test was used to test for differences in the 1-year persistence rate.

Results: Among 10,954 patients with a diagnosis of PsA, 348 biologic-naïve patients aged 18 years or above were identified. The one-year overall persistence rate was 57.5% for all bDMARD compounds. Reasons for non-persistence were switches to a different bDMARD agent in 15.8% of patients and 26.7% discontinued treatment. The highest persistence rate was observed for ustekinumab (81.3%), which was significantly higher than the respective rates for adalimumab (58.1%), certolizumab pegol (51.7%), etanercept (51.0%), or secukinumab (54.7%).

Conclusion: Persistent rates for a real-world cohort of German PsA patients are modest with significant variations among different bDMARD therapies.

Disclosure of Interests: Philipp Sewerin Grant/research support from: AbbVie Deutschland GmbH & Co. KG

Bristol-Myers Squibb Celgene GmbH

Lilly Deutschland GmbH

Novartis Pharma GmbH Pfizer Deutschland GmbH

Rheumazentrum Rhein-Ruhr, Consultant of: AMGEN GmbH AbbVie Deutschland GmbH & Co. KG Biogen GmbH Bristol-Myers Squibb Celgene GmbH Chugai Pharma arketng Ltd. / Chugai Europe GmbH Hexal Pharma Janssen-Cilag GmbH Johnson & Johnson Deutschland GmbH Lilly Deutschland GmbH / Lilly Europe / Lilly Global Novartis Pharma GmbH Pfizer Deutschland GmbH Roche Pharma Rheumazentrum Rhein-Ruhr Sanofi-Genzyme Deutschland GmbH Swedish Orphan Biovitrum GmbH UCB Pharma GmbH, Speakers bureau: AMGEN GmbH AbbVie Deutschland GmbH & Co. KG Biogen GmbH Bristol-Myers Squibb Celgene GmbH Chugai Pharma arketng Ltd. / Chugai Europe GmbH Hexal Pharma Janssen-Cilag GmbH Johnson & Johnson Deutschland GmbH Lilly Deutschland GmbH / Lilly Europe / Lilly Global Novartis Pharma GmbH Pfizer Deutschland GmbH Roche Pharma Rheumazentrum Rhein-Ruhr Sanofi-Genzyme Deutschland GmbH Swedish Orphan Biovitrum GmbH UCB Pharma GmbH, Kathrin Borchert Consultant of: Janssen-Cilag GmbH, Dominic Meise Consultant of: Janssen-Cilag GmbH, Jörg Mahlich Shareholder of: Janssen-Cilag GmbH, Employee of: Janssen-Cilag GmbH

DOI: 10.1136/annrheumdis-2020-eular.6382

SAT0439

POWER DOPPLER ULTRASOUND ASSESSMENT OF A1 PULLEY. A NEW TARGET IN PSORIATIC ARTHRITIS?

G. Smerilli¹, E. Cipolletta¹, M. Di Carlo¹, A. Di Matteo¹, W. Grassi¹, E. Filippucci¹. ¹Polytechnic University of Marche, Rheumatology Unit, Department of Clinical and Molecular Sciences, "Carlo Urbani" Hospital, Jesi, Italy

Background: In the last few years annular pulleys inflammation has been highlighted as a possible key pathogenetic factor in psoriatic dactylitis, first with magnetic resonance imaging (MRI)¹, then, in a very recent paper², with power Doppler (PD) ultrasound (US). However, the prevalence of PD US inflammation of annular pulleys in psoriatic arthritis (PsA) patients compared to rheumatoid arthritis (RA) patients has not been investigated yet.

Objectives: To determine the prevalence of PD US findings indicative of A1 pulley inflammation in PsA patients and in controls with RA and to preliminarily investigate the correlation between A1 pulley inflammation and disease activity (DAPSA).

Methods: Consecutive patients with PsA and RA were included in this cross-sectional single-centre study. A rheumatologist recorded demographic and clinical data and in the same day another rheumatologist performed the US examination using a MyLab ClassC (Esaote, Genova, Italy) equipped with a 10-22 MHz linear probe. A1 pulleys of fingers 2nd to 5th were assessed bilaterally adopting longitudinal and transverse scans. The following pathological US findings were recorded: inflammation of the pulley (defined as the presence of PD signal within a thickened pulley) and tenosynovitis of the digital flexor tendons at finger level according to OMERACT definition.

Results: Sixty patients were enrolled: 30 with PsA and 30 with RA. Inflammation of A1 pulley was found in 15 out of 240 fingers (6.3%) of 8 (26.7%) PsA patients and in 1 out of 240 fingers (0.4%) of 1 (3.3%) RA patients (p<0.01 and p=0.03 respectively). Both pulley inflammation and tenosynovitis were correlated with DAPSA (Rpb=0.56, p<0.01 and Rpb=0.48, p<0.01). In fact, 7 out of 8 (88%) PsA patients with at least one inflamed A1 pulley had a moderate/high disease activity score. The regression linear analysis (R2=0.36, adjusted R2=0.31) showed that A1 pulley inflammation was correlated with higher DAPSA scores (β=0.43, p=0.03). No significant association was reported between A1 pulley inflammation and past or current episodes of dactylitis (p=0.09). However, the only current dactylitis assessed showed A1 pulley inflammation.

Conclusion: This pilot study demonstrated that ultrasound A1 pulley inflammation, defined as the presence of power Doppler signal within a thickened pulley, is relatively common at patient level in psoriatic arthritis and seems to be characteristic of PsA compared to RA. In psoriatic arthritis patients, a positive significant correlation was found between ultrasound A1 pulley inflammation and disease activity.

References:

- [1] Tan AL, Fukuba E, Halliday NA, Tanner SF, Emery P, McGonagle D. High-resolution MRI assessment of dactylitis in psoriatic arthritis shows flexor tendon pulley and sheath-related enthesitis. *Ann Rheum Dis* 2015; 74: 185-9.
- [2] Tinazzi I, McGonagle D, Macchioni P, Aydin SZ. Power Doppler enhancement of accessory pulleys confirming disease localization in psoriatic dactylitis. *Rheumatology (Oxford)* 2019 [Epub ahead of print].

Disclosure of Interests: Gianluca Smerilli: None declared, Edoardo Cipolletta: None declared, Marco Di Carlo: None declared, Andrea Di Matteo Grant/research support from: the publication was conducted while Dr. Di Matteo was an ARTIC-ULUM fellow, Walter Grassi Speakers bureau: Prof. Grassi reports personal fees from AbbVie, personal fees from Celgene, personal fees from Grünenthal, personal fees from Pfizer, personal fees from Union Chimique Belge Pharma, outside the submitted work., Emilio Filippucci Speakers bureau: Dr. Filippucci reports personal fees from AbbVie, personal fees from Bristol-Myers Squibb, personal fees from Celgene, personal fees from Roche, personal fees from Union Chimique Belge Pharma, personal fees from Pfizer, outside the submitted work.

DOI: 10.1136/annrheumdis-2020-eular.1404

SAT0440

METHOTREXATE SURVIVAL RATE IN PATIENTS WITH PSORIATIC ARTHRITIS FROM PSORIATIC ARTHRITIS -INTERNATIONAL DATABASE (PSART-ID) COHORT

D. Solmaz¹, U. Kalyoncu², I. Tinazzi³, O. Bayindir⁴, E. Dalkılıç⁵, A. Dogru⁶, C. Özışler⁷, G. Kimyon⁸, G. Yildirim Cetin⁹, A. Omma¹⁰, E. F. Tarhan¹¹, L. Kılıç², S. Akar¹, S. Yilmaz¹¹, M. Can¹², S. Yavuz¹², O. Küçükahin⁷, S. Bakırcı¹³, S. Aydin¹⁴. ¹Izmir Katip Celebi University School of Medicine, Izmir, Turkey; ²Hacettepe University School of Medicine, Ankara, Turkey; ³Ospedale Sacro Cuore, Verona, Italy; ⁴Ege University, Izmir, Turkey; ⁵Uludağ University, Bursa, Turkey; ⁶Suleyman Demiral University, Isparta, Turkey; ⁷DisKapi Yildirim Beyazit Education and Research Hospital, Ankara, Turkey; ⁸Mustafa Kemal University, Hatay, Turkey; ⁹Kahramanmaraş Sutcu Imam University, Kahramanmaraş, Turkey; ¹⁰Ankara Numune Education and Research Hospital, Ankara, Turkey; ¹¹Selçuk University, Konya, Turkey; ¹²Marmara University, Istanbul, Turkey; ¹³Antalya