systematic review and meta-analysis of randomised placebo-controlled trials. *Ann Rheum Dis* 2010;69:1756-1761.

Acknowledgement: Study sponsored by Pfizer Inc.

Disclosure of interests: Bon San Koo Grant/research support from: Pfizer, Yu-Cheol Lim: None declared, Min-Young Lee: None declared, Ja-Young Jeon Employee of: Pfizer, Hyun-Jeong Yoo Employee of: Pfizer, In-Sun Oh: None declared, Ju-Young Shin: None declared, Eui-Kyung Lee Grant/research support from: Pfizer, Tae-hwan Kim: None declared

DOI: 10.1136/annrheumdis-2019-eular.3197

FRI0375 SITE-SPECIFIC EFFECTIVENESS OF TNF INHIBITORS FOR ENTHESITIS IN DMARD-NAIVE PATIENTS WITH AXIAL SPONDYLOARTHRITIS

Thomas Huegle¹, Burkhard Moeller², Adrian Ciurea³, Michael Nissen⁴, Patrick Zueger⁵, Martin Schulz⁶, Fabiana Ganz⁶, Almut Scherer⁷, Eleftherios Papagiannoulis⁷. ¹Lausanne University Hospital (CHUV), Lausanne, Switzerland; ²University Hospital of Bern, Bern, Switzerland; ³University Hospital Zurich, Zurich, Switzerland; ⁴Geneva University Hospital, Geneva, Switzerland; ⁵AbbVie Inc., North Chicago, United States of America; ⁶AbbVie AG, Baar, Switzerland; ⁷Swiss Clinical Quality Management in Rheumatic Diseases Foundation, Zurich, Switzerland

Background: Enthesitis is a hallmark of spondyloarthritis (SpA), with substantial impact on quality of life. Although pathophysiological mechanisms of enthesitis may include both mechanical and autoimmune features, improvements upon initiation of TNF-inhibitors (TNFi) across individual enthesitis sites have not been reported in real-world patients with axial spondyloarthritis (axSpA).

Objectives: To investigate the effectiveness of TNFi in axSpA patients without prior DMARD treatment at specific enthesitis sites, including spine, thoracic cage, Achilles tendon and the plantar fascia.

Methods: This was a retrospective cohort study using the Swiss Clinical Quality Management in Rheumatic Diseases (SCQM) registry. AxSpA patients initiating TNFi without previous DMARD (biologic or conventional synthetic DMARD [csDMARD]) use and with available Maastricht Ankylosing Spondylitis Enthesitis Score, modified to include the plantar fascia, (MASES) at start of treatment ('baseline') and after 6 months ($\pm$ 3 months) of follow up were included. Presence of enthesitis was defined as at least 1 inflamed enthesitis. Among patients with any enthesitis present at baseline, the number of patients with enthesitis at each MASES site was assessed at baseline and the 6 month follow up. Fisher's exact test was used to assess significant enthesitis resolution at each enthesitis site between baseline and 6-month follow up. The Holm-Bonferroni method was used for multiplicity correction of p-values.

Results: 781 DMARD-naïve patients with axSpA who initiated TNFi were identified. At baseline, patients (57% male) were a median of 40 (interquartile range [IQR]) = 31-50) years of age with a median disease duration of 9 (IQR = 3-18) years and median Ankylosing Spondylitis Disease Activity Score (ASDAS-CRP) of 3.4 (IQR = 2.8-3.9) at treatment initiation. A subgroup of 160 TNFi patients had active enthesitis at baseline (MASES: mean = 4.14, standard deviation [sd] = 2.87) and a 6-month follow-up visit with MASES available (MASES: mean = 2.07, sd = 2.82), with a mean MASES reduction at the follow-up visit of 2.07 (sd = 3.06). At the 6-month follow up, complete enthesitis resolution was observed for 72 (45.0%) of patients. Enthesitis resolution was most frequent at the following sites: the costochondral sternum, the costochondral joint, the lumbar vertebra, the pelvic crest, and spina iliaca posterior (Figure 1). Limited resolution of enthesitis was observed in the spina iliaca anterior, plantar fascia, and the Achilles tendon.

Conclusion: Our results suggest that for real-world DMARD-naïve axSpA patients, TNFi are generally effective for resolving enthesitis. Significant

resolution was observed for enthesitis of the spine and thoracic cage though resolution was more limited for plantar fascia or Achilles tendon enthesitis. Lower limb entheses are more prone to mechanical strain and may therefore require alternative or more prolonged therapy.

Acknowledgement: This study was funded by AbbVie Inc. All authors were involved in the study design, review, data interpretation and approval of the abstract.

Disclosure of interests: Thomas Huegle Grant/research support from: AbbVie, Lilly, Novartis and Pfizer, Speakers bureau: AbbVie, Lilly, Novartis and Pfizer, Burkhard Moeller Consultant for: Swissmedic Human Medicines Expert Committee Member (regulatory agency), Adrian Ciurea Consultant for: AbbVie, Celgene, Janssen-Cilag, MSD, Eli Lilly, Novartis, Pfizer, UCB, Speakers bureau: AbbVie, Celgene, Janssen-Cilag, MSD, Eli Lilly, Novartis, Pfizer, UCB, Michael Nissen Consultant for: AbbVie, Lilly, Novartis, and Pfizer, Patrick Zueger Shareholder of: AbbVie, Employee of: AbbVie, Martin Schulz Shareholder of: AbbVie, Employee of: AbbVie, Fabiana Ganz Shareholder of: AbbVie, Employee of: AbbVie, Almut Scherer Grant/research support from: Almut Scherer is an employee of SCQM, which receives funding from AbbVie, Celgene, iQONE, Lilly, MSD, Novartis, Pfizer, Roche, Sandoz, Sanofi Genzyme, and UCB., Consultant for: Consultant for Pfizer, MSD, and AbbVie, Eleftherios Papagiannoulis: None declared

DOI: 10.1136/annrheumdis-2019-eular.5819

FRI0376 DIFFERENCES IN PHYSICAL ACTIVITY BETWEEN AXIAL SPONDYLOARTHRITIS PATIENTS WITH AND WITHOUT PHYSICAL THERAPY

Bas Hilberink¹, Florus van der Giesen², Thea Vliet Vlieland¹, Floris A. van Gaalen², Karel Ronday³, Andreas Peeters⁴, Salima van Weely¹. ¹Leiden University Medical Center, Orthopaedics, Rehabilitation and Physical Therapy, Leiden, Netherlands; ²Leiden University Medical Center, Rheumatology, Leiden, Netherlands; ³Haga Hospital, The Hague, Netherlands; ⁴Reinier de Graaf Gasthuis, Delft, Netherlands

Background: Physical activity (PA) according to public health guidelines is effective and safe for people with rheumatic and musculoskeletal diseases, including axial spondyloarthritis (axSpA), and should be promoted by healthcare providers.¹ In axSpA, in particular high intensity aerobic PA is beneficial, yet this was found to be incompletely implemented in physical therapy programs.² Studies describing aerobic PA in axSpA patients with and without physical therapy are lacking.

Objectives: To describe the amount, frequency and intensity of aerobic PA in axSpA patients with and without physical therapy treatment.

Methods: A survey, which included questions on patient characteristics, current physical therapy use (individual or group), PA (Short QUEStionnaire to ASess Health-enhancing PA (SQUASH)) and health status (Assessment of Spondyloarthritis International Society Health Index (ASAS HI)), was sent by postal-mail to 458 axSpA patients registered in three hospitals in the Netherlands. From the SQUASH, besides amount (minutes/week) of all PA and meeting the PA guideline (≥ 30 minutes $\geq$ moderate PA on ≥ 5 days/week; yes/no), also the amount and frequency (sessions/week) of moderate and vigorous intensity aerobic PA during commuting and leisure (including sports) were extracted. Differences in PA behaviour between patients with and without current physical therapy were analyzed with the Mann-Whitney U or Chi-square test, where appropriate.

Results: The questionnaire was returned by 206 axSpA patients (response rate: 45%) of whom 200 completed the SQUASH correctly. Overall, 64% met the PA guideline. Half of the patients were using physical therapy (n=99; 77 individual, 11 group and 11 both); these patients had a significantly longer disease duration. Regarding overall PA, there were no differences in the total amount and the proportion meeting the guideline between patients with and without physical therapy. For moderate intensity aerobic PA, both the amount and frequency were significantly greater in the group with physical therapy, whereas for vigorous intensity aerobic PA there were no differences between the groups (Table 1).

Conclusion: More than half of people with axSpA were physically active according to public health PA guidelines. People using physical therapy engaged in significantly more moderate intensity, but not high intensity aerobic PA than those without physical therapy. These results indicate that high intensity aerobic PA should be more intensively advocated and implemented, also in physical therapy treatment.

REFERENCES:

- [1] Rausch Osthoff, et al. *Ann Rheum Dis*. 2018;77:1251-1260.
- [2] Niedermann, et al. *Arthritis Care Res*. 2018. Doi: :10.1002/acr.23705