Abstract AB0833 – Table 1

Psoriatic Arthritis Cohort	
Mean age (years)	54.3 ± 8.5
Disease duration (years)	9.7 ± 7.9
Symmetric polyarthritis	32 (52.4%)
Asymmetric oligoarthritis	12 (19.7%)
Spondyloarthritis	12 (19.7%)
Distal arthritis	4 (6.5%)
Arthritis mutilans	1 (1%)
bDMARDS Naive	15 (24.6%)
Previous anti-TNFα therapy	43 (70.5%)
Previous anti-IL12/23 therapy	12 (19.7%)

Ankylosing Spondylitis Cohort	
Mean age (years)	47 ± 13.4
Disease duration (years)	12 ± 9.5
Presence of syndesmophytes	2 (6.9%)
bDMARDS Naive	17 (58.6%)
Previous anti-TNFα therapy	12 (41.4%)

Conclusions: In this first real-world cohorts of patients with PsA and AS Secukinumab has proven to be effective, regardless of PsA subtype, radiographic progression in AS and previous exposure to biologic therapy. The safety profile was favourable and similar to previous studies.

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Disclosure of Interest: None declared
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AB0834 BETTER IMPROVEMENT OF ASDAS WERE ACHIEVED IN 841 AS PATIENTS AMONG 6 MONTHS OF ANTI-TNF USERS COMPARED TO NON-ANTI-TNF USERS: RESULTS FROM A REAL WORLD PROSPECTIVE COHORT MANAGED BY SMART PHONE SYSTEM

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Background: Ankylosing spondylitis (AS) is a chronic and progressive condition of the spine, which is the most common form of spondyloarthritis (SpA). Although anti-TNF agents are the most effective therapy for AS or SpA, it is recommended as the second-line treatment for individuals who have persistently high disease activity despite treatment with at least 2 non-steroidal anti-inflammatory drugs (NSAIDs), intolerance or contraindication to NSAIDs. Changes in ankylosing spondylitis disease activity score (ASDAS) are often measured to reflect outcomes in AS trials. However, anti-TNF does not always maintain long-term remission. There is limited evidence about remission rate of 6 months treatment from real-world AS cohorts.
Objectives: The purpose of this study is to compare the remission rate of AS patients among biologics users or non-biologics users from China Ankylosing Spondylitis/Spondyloarthritis Prospective Imaging Cohort (CASPIC).
Methods: CASPIC is an ongoing prospective cohort established by a smart management system[Smart Management System for Spondyloarthritis (SMSP)]. Clinic visits were scheduled based on visits reminder set by rheumatologists (1~6 months). Anti-TNF users were defined as patients who used biological agents during the follow-up period and the baseline was defined as the start time to use the biological agents. Non-biologics users were served as control groups. ASDAS was calculated to assess disease activity in AS. Generalise additive mixed model and curve fitting were used to show the difference between two groups.
Results: There were 841 AS patients in this cohort, 83.4% were male, with mean (±SD) age 30.8 (±8.8) years, mean time since diagnosis 8.3 (±6.1) years (table 1). Mean duration of anti-TNF treatment was 4.1 (±3.5) months. Significant improvements were observed in ASDAS (table 2). Anti-TNF users had more serious disease activity, and better clinical improvement (figure 1). If the duration of anti-TNF treatment was less than 6 months, relapsed rates were higher than those with longer than 6 months of anti-TNF (figure 1).

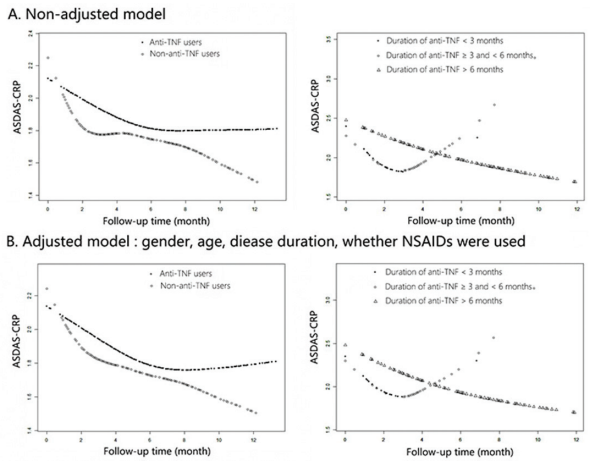
Abstract AB0834 – Table 1. Baseline characteristics

mean(SD)/N(%)	Anti-TNF users (n=633)	Non-anti-TNF users (n=208)	P
Age	31.2 (9.0)	29.7 (8.1)	0.040
Disease duration	8.3 (6.2)	8.4 (5.7)	0.869
ASDAS-CRP	2.1 (1.0)	2.6 (1.1)	<0.001
Male	535 (84.5%)	166 (79.8%)	0.114
HLA-B27 positivity	495 (87.3%)	176 (89.3%)	0.451
With NSAIDs	526 (99.1%)	162 (98.2%)	0.356

Abstract AB0834 – Table 2. Change in ASDAS per month

	Anti-TNF users	Non-anti-TNF users	P
Non-adjusted	−0.027 (-0.043,–0.011)	−0.065 (-0.094,–0.036)	<0.01
Adjusted	−0.032 (-0.048,–0.015)	−0.063 (-0.092,–0.033)	<0.01

Adjusted model: gender, age, disease duration, whether NSAIDs were used



Abstract AB0834 – Figure 1. Curve Fitting of Change in ASDAS

Conclusions: Anti-TNF therapy had superior improvement than NSAIDs therapy. Anti-TNF should be used for more than 6 months to achieve better and sustained remission and prevent recurrence.
Disclosure of Interest: None declared
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AB0835 COMPARISON OF LONG TERM ANTI-TNF SURVIVAL IN PATIENTS WITH ANKYLOSING SPONDYLITIS AND NON-RADIOGRAPHIC AXIAL SPONDYLOARTHRITIS; DATA FROM TURKBIO REGISTRY

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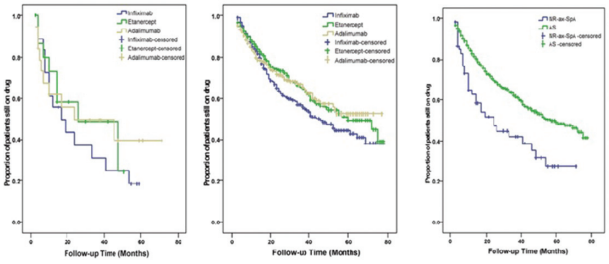
Background: Limited data are available on anti-TNF survival in non-radiographic axial spondyloarthritis (nr-axSpA) patients and their long-term survival in ankylosing spondylitis (AS).
Objectives: The aim of the study was to evaluate long term survival of the first anti-TNF drug treatment among patients with AS and nr-axSpA enrolled in the TURKBIO database and to compare the discontinuation rates for infliximab (INF), etanercept (ETN), and adalimumab (ADA) in each of the two groups.
Methods: All AS and nr-axSpA patients receiving biological therapies registered in the TURKBIO database between the dates of october 2011 and april 2017 were included in the study. AS diagnosis was made according to modified New York classification criteria and nr-axSpA according to ASAS AxSpA classification criteria. Demographic and clinical data, the date of starting to use biological drug, using frequency and dose of biological drugs, BASFI, BASDAI, BASMI, ASDAS scores, date and reason for discontinuing to use drug were collected. Baseline characteristics and drug survival rates were compared between AS and nr-axSpA patients. Drug survival was calculated by the Kaplan-Meier method and risk for discontinuation among treatment groups cpmpared by Long Rank test.
Results: A total of 924 patients were included in the study (AS, n=871 and nr-axSpA, n=53). More than half of the patients with AS were male (60.7% in AS vs 34.0% in nr-axSpA group, p<0.001).AS patients had longer symptom duration (104.90±79.06 vs 75.11±45.29 months, p<0.036) compared to nr-axSpA. Median levels of CRP and ESR were similar for nr-axSpA (CRP: 27.03±34.71, ESR: 30.50±25.77) and AS (CRP: 22.32±29.95, ESR: 35.40±22.91). The scores of

BASFI, BASMI and ASDAS were found to be similar in both groups. Median BASDAI scores at first TNFi initiation were higher in patients with nr-axSpA than in patients with AS (58.65±18.21, 51.06±18.91, p=0.030). Cumulative drug survival rates did not show significant difference among INF (at 59. months:18,5%), ADA (at 71. months: 39,5%) and ETN (at 51. months: 24,2%) in nr-axSpA group (p=0,699) (figure 1). Similarly, drug survival rates at 78, 77, 78. months for 3 anti-TNF drugs had shown no difference in AS patients (INF (at 78. months: 38,1%), ADA (at 77. months: 52,4%), ETN (at 78. months: 39,0%)) (p=0,151) (Figure 2). Cumulative survival rates in AS patients (at 78. months:42,2%) were found to be significantly higher than that (at 71. months:28,2%) in nr-axSpA patients (p<0,001) (Figure 3).



Abstract AB0835 – Figure 1. Drug survival rates anti-TNF in nr-axSpA. Abstract AB0835 – Figure 2. Drug survival rate by anti-TNF in AS. Abstract AB0835 – Figure 3. Overall drug survival on first anti-TNF in nr-axSpA and AS patients.

Conclusions: In contrast to the literature that revealed similar short term survival rates for anti-TNF drugs in patients with AS and nr-axSPA, we found higher survival rates in patients with AS compared to patients with nr-axSpa in this long-term observational study.A limitation of the study may be the low number of nr-axSpa patients using anti-TNF, related to the requirements of social insurance system.

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AB0836 DRUG RETENTION RATE OF THE FIRST TNF INHIBITOR IN RADIOGRAPHIC AND NON RADIOGRAPHIC AXIAL SPONDYLOARTHRITIS: DATA FROM A MULTICENTER STUDY

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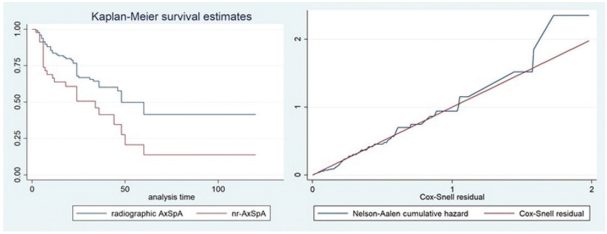
Background: Good survival rates of TNF inhibitors (TNFi) have been shown in patients affected with axial Spondyloarthritis (axSpA) treated in a real-life setting, irrespective of administered anti-TNF agent.[1] Although the use of these drugs in patients with non radiographic axSpA (nr-axSpA) remains topic of debate,[2] several RCTs support their employment in these patients.[3]

Objectives: To assess the retention rate of the first TNF inhibitor between axSpA and nr-axSpA patients. Additional aims: i) to evaluate any difference in persistence rates between anti-TNF monoclonal antibodies and etanercept (ETN) ii) to assess any impact of clinical, therapeutic and demographic features as well as radiographic findings on drug survival.

Methods: We retrospectively assessed 221 patients with axSpA, all fulfilling the ASAS criteria, who underwent first line therapy with TNFi from January 1st 2012 to September 30th 2016. Clinical, therapeutic and demographic features as well as radiographic findings were recorded at baseline and at the moment of therapy discontinuation. 126/221 patients (57.01%) were treated with Adalimumab, 45/221 with ETN, 22/221 with Infliximab, 20/221 (9.05%) with Golimumab, whereas 8/221 (3.62%) with Certolizumab Pegol. Drug retention rates were analysed using Kaplan-Meier curves; log-rank test was performed to demonstrate differences in the survival function. Cox regression models were used to estimate the inference of several clinical and disease characteristics on drug discontinuation. Goodness of fit of the final model was assessed comparing Cox-Snell residuals to Nelson-Alen cumulative hazard function.

Results: Drug survival in first line therapy was significantly lower in patients who had nr-axSpA than in those with radiographic sacroiliitis (p=0.005, figure 1) whereas survival rate did not differ significantly between patients treated with ETN and anti-TNFα monoclonal antibodies (p=0.057). Multivariate Cox model shown that nr-axSpA (HR 1.90), higher BMI (HR 1.18), higher HAQ, (HR 1.82) and higher BASDAI (HR 1.25), were predictors of drug discontinuation, Nelson–Alen hazard function following very closely Cox-Snell residuals for drug persistence in first line therapy showed that the final model fitted well the data, except for large values of time (figure 2).



Abstract AB0836 – Figure 1. Kaplan-Meier curves. Abstract AB0836 – Figure 2. Cox-Snell residuals vs Nelson-Aalen cumulative Hazard function

Conclusions: Effectiveness of TNFi, estimated by drug survival, seems to be lower in patients with nr-AxSpA than those affected with axSpA. The reason of these findings remain to be elucidated. However, a possible explanation may be searched in the limit of the classification criteria for nr-axSpA. In addition overweight and high disease activity negatively impact the persistence on first line anti-TNFα treatment in axSpA patients in real life setting.

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Disclosure of Interest: None declared

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AB0837 THE EFFECT OF ANTI-TNF ON RENAL FUNCTION IN PATIENTS WITH ANKYLOSING SPONDYLITIS: A PROSPECTIVE COHORT STUDY

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Background: Impaired renal function is common in patients with ankylosing spondylitis (AS) and patients also have an increased risk of cardiovascular disease (CVD). Previous studies showed that biologicals, such as anti-Tumour Necrosis Factor (anti-TNF) reduce CVD in patients with inflammatory rheumatic disease. Impaired renal function is a known predictor of CVD (also elevated in AS). We postulated that the favourable cardiovascular effect of anti-TNF might be mediated by improving renal function. However, data about the effect of biologicals on renal function in patients with AS are lacking.

Objectives: To assess the effect of anti-TNF on renal function in patients with AS.

Methods: Biological-naïve consecutive AS patients treated with etanercept or adalimumab were prospectively followed from 2005 to 2014. Renal function was determined by calculation of the estimated Glomerular Filtration Rate (eGFR), which was estimated with the abbreviated Modification of Diet in Renal Disease (MDRD) formula. Patients were divided into two groups: patients with normal renal function at baseline and patients with impaired renal function at baseline, to investigate whether the effect is different for these groups. Normal renal function was defined by eGFR $\geq$90 mL/min/1.73 m^2 at baseline and impaired renal function was defined by eGFR <90 mL/min/1.73 m^2 at baseline. The effect of anti-TNF on eGFR was analysed using mixed model analysis.

Results: 211 AS patients were followed for a median of 156 (36 – 286) weeks. 153 patients had normal renal function and 58 had impaired renal function at baseline. In patients with normal renal function at baseline eGFR decreased significantly over time (β=−0.041, p=0.001), although this association did not remain significant after adjustment for disease activity (β=−0.015, p=0.212). Patients with impaired renal function at baseline did not have a significant change in eGFR over time (β=0.022, p=0.087) and this association remained not significant after adjustment for alcohol consumption, BMI, disease duration and disease activity (β=0.008, p=0.593). The change in eGFR on average over time after starting anti-TNF in AS patients with normal and impaired kidney function are presented in figure 1.