(HR 1.619, $p=0.018$) and uveitis (HR 1.732, $p=0.025$) as predictors for worse drug survival. At the time of censoring only 202 (11.6%) patients were using csDMARDs with TNFi agent. When we repeat the analysis with patients continuing csDMARDs we showed that there is no significant differences regarding TNFi survival.

Conclusions: The results of present study showed that considerable amount of SpA patients were using csDMARDs at time of first TNFi initiating and drug survival was significantly better in those patients.

Disclosure of Interest: None declared

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SAT0298 TRANSCUTANEOUS VAGUS NERVE STIMULATION IN PATIENTS WITH PSORIATIC ARTHRITIS OR ANKYLOSING SPONDYLITIS

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Background: Psoriatic arthritis and ankylosing spondylitis are chronic autoimmune diseases characterised by inflammation of both peripheral and spinal joints. The chronic inflammation may lead to impaired functionality and absenteeism from work. It has become increasingly accepted that the vagus nerve plays a pivotal role as a communicator between the immune and nervous systems¹. Recent studies in similar immune-mediated inflammatory diseases have demonstrated promising anti-inflammatory effect of vagus nerve stimulation^{2,3}.

Objectives: We hypothesised that transcutaneous vagus nerve stimulation (t-VNS) would increase the activity of the vagus nerve, and that this enhanced parasympathetic tone would reduce inflammation and disease activity. The aims of this study were to investigate the effects of t-VNS on cardiac vagal tone and disease activity in patients with psoriatic arthritis or ankylosing spondylitis.

Methods: Twenty patients diagnosed with psoriatic arthritis (median disease duration 7.0 years) and 17 patients diagnosed with ankylosing spondylitis (median disease duration 4.5 years) were included in the study. Transcutaneous vagus nerve stimulation for 120 s was performed bilaterally, thrice daily for four days, using a non-invasive handheld device. Cardiac vagal tone, measured on a linear vagal scale (LVS), and disease activity scores were assessed on the 1 st, 2nd and 5th day.

Results: In the ankylosing spondylitis group, cardiac vagal tone was significantly increased 30 min after t-VNS in comparison to baseline (6.46 vs. 6.57. LVS, $p<0.05$) (figure 1A), accompanied by a significant reduction in heart rate (68.44 vs. 65.37, $p<0.01$). Transcutaneous vagus nerve stimulation did not change cardiac vagal tone in the psoriatic arthritis group (figure 1C), however, a significant reduction in heart rate 30 min after t-VNS in comparison to baseline was observed (71.26 vs. 68.04, $p<0.01$). A significant reduction in ASDAS score was demonstrated in the psoriatic arthritis group on both day 2 (2.09 vs. 1.96, $p<0.05$) and day 5 (2.09 vs. 1.88, $p<0.01$) (figure 1D).

Abstract SAT0298 – Figure 1. Cardiac vagal tone and ASDAS score. * $p<0.05$, ** $p<0.01$

Conclusions: Transcutaneous vagus nerve stimulation may have an acute effect on cardiac vagal tone and heart rate in patients with ankylosing spondylitis and psoriatic arthritis. The observed effect of t-VNS on ASDAS scores in patients with psoriatic arthritis was not associated with a modulation of cardiac vagal tone.

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SAT0299 REAL WORLD SECUKINUMAB STUDY IN AS AND PSA – COMORBIDITIES AND EXTRAARTICULAR MANIFESTATIONS: INCIDENCE AND STATUS THROUGHOUT NON-INTERVENTIONAL AQUILA STUDY IN GERMANY

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Background: Patients with psoriatic arthritis (PsA) or ankylosing spondylitis (AS) may suffer from extraarticular manifestations (EAM) (uveitis, psoriasis) and have higher rates of comorbidities like cardiovascular diseases (CVD) or depression than the normal population. Comorbidities should be kept in mind when managing pts with PsA and AS, as they can contribute to increased mortality and influence disease activity¹.

Objectives: The aim of this interim analysis is to evaluate the incidence of selected EAM and comorbidities at baseline and the impact of secukinumab on the status of these attributes compared to baseline.

Methods: The presence and severity of uveitis and psoriasis (assessed by PASI) as well as diagnosis of coronary heart disease (CHD), stroke, heart insufficiency, and depression (assessed by Becks Depression Inventory (BDI-II)) were documented according to clinical routine at baseline and at week 4, 16, 24 and 52 after initiation of secukinumab. At baseline 486 patients were included and observed up to 52 weeks, at the time of analysis not all patients have already reached the end of the study, therefore the results are presented as observed.

Results: As expected, current plaque psoriasis was very frequent in PsA pts (63.3%), but also present in AS pts (11.5%) at baseline. For PsA pts, median PASI improved from 5.0 at baseline to 0.0 at wk 52. Half of pts with available PASI achieved clear skin at wk 52 (Tab 1).

Uveitis was more frequent in AS pts than in PsA pts (6.2% vs 0.9%). Only 1 AS pt and 2 PsA pts experienced new onset of uveitis.

CVD were more frequent in PsA than in AS patients at baseline: CHD (PsA 8.9%, AS 3.5%), heart failure (PsA 3.3%, AS 0.7%) and stroke (PsA 2.4%, AS 0.0%). During 52 wks study duration none comorbidity worsened with secukinumab treatment. Two patients with PsA were newly diagnosed with CHD and heart insufficiency throughout wk 52. No new stroke occurred.

Depression was common in both populations (PsA 15.4%, AS 12.2%) at baseline. Up to wk 52 median BDI-II improved from 12.0 to 6.0 (AS pts) and from 9.0 to 6.0 (PsA pts [Tab 1]).

Abstract SAT0299 – Table 1. PASI and BDI response under secukinumab

	Baseline	Wk 4	Wk 16	Wk 28	Wk 40	Wk 52
PASI 100 n(%)	0 (0.0)	7 (13.0)	23 (34.3)	28 (47.5)	18 (41.9)	15 (50.0)
PASI 75 n(%)	0 (0.0)	9 (16.7)	26 (38.8)	33 (55.9)	21 (48.8)	18 (60.0)
BDI-II (AS pts)	12.0	9.0	8.0	8.0	7.5	6.0
BDI-II (PsA pts)	9.0	8.0	7.5	8.0	7.0	6.0