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POS0140 URATE-LOWERING THERAPY REDUCES NON-EPISODIC FOOT PAIN IN PATIENTS WHO FAIL TO MEET ACR/EULAR 2015 GOUT CLASSIFICATION CRITERIA: AN EFFECT PREDICTED BY ULTRASOUND

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Background: Emerging evidence that the joints of asymptomatic hyperuricaemic individuals contain monosodium urate (MSU) deposits and that alternative presentations of foot pain occur in hyperuricaemia suggests that preclinical phases may occur prior to a first episodic gout attack. (1) This case–control study evaluates urate deposition in hyperuricaemic individuals not fulfilling the current gout classification criteria, as well as a potential therapeutic role for urate lowering therapy (ULT).
Objectives: To investigate whether ULT reduces non-episodic foot pain in patients who fail to meet ACR/EULAR 2015 gout classification criteria.
Methods: Following informed consent, hyperuricaemic individuals with persistent, non-episodic foot pain (n=53) not fulfilling ACR/EULAR 2015 gout classification criteria, were compared with asymptomatic hyperuricaemic controls (n=18). Ultrasound (US) of bilateral first metatarsophalangeal (MTP) joints and features of MSU deposition including double contour (DC) sign, tophus and juxta-articular erosion were recorded. Cases only were treated with febuxostat or allopurinol daily for 6 months. Serum urate, 24-hour and 7-day visual analogue score (VAS) 0–100 mm pain scales and the Manchester Foot Pain and Disability Index (MFPDI) were recorded before treatment and after 3 and 6 months. MTP Ultrasound was repeated after a minimum of 6 months on treatment.
Results: 53 hyperuricaemic individuals with persistent, non-episodic foot pain not meeting the ACR/EULAR 2015 gout classification criteria were recruited. At baseline MTP US DC sign, erosion and tophus occurred in 62.5%, 20.8% and 49% of cases, respectively. No US features of gout occurred in controls. No significant difference was seen in baseline serum urate between cases (481±14 mg/dL) versus controls (437±14; p=NS). Serum urate in cases fell at 3 months (325±25; p<0.01) and 6 months (248±19; p<0.01). For cases, baseline 24-hour pain VAS (46±3.9) reduced at 3 months (32±4.1; p<0.05) and 6 months (21±5.2; p<0.05) of ULT. The 7-day pain VAS (59±3.9) decreased at 3 months (35±4.5; p<0.05) and 6 months (30±5.3; P<0.05). MFPDI (17±1.4) decreased at 3 month (13±1.8; p=<0.05) and 6 months (11±2.2; p=<0.05). When cases were grouped according to the presence (N=33) or absence (N=18) of DC sign on baseline US, no differences were observed for baseline pain scores. Following ULT however, 24-hour pain VAS were significantly lower in DC positive patients at 3 months (22±4.48 DC positive vs 42±6.14 DC negative; p<0.05) and 6 months (12.±5.4 vs 33±8.4; p<0.05). The 7-day pain VAS were significantly lower in DC positive patients at 3 months (23±4.6 vs 47±6.6; p<0.05) and MFDPI were significantly lower in DC positive patients at 3 months (10±1.9 DC positive vs 19±2.9 DC negative; p<0.05).
Conclusion: These findings indicate that persistent, non-episodic foot pain in hyperuricaemia is both associated with US features of MSU deposition and is responsive to ULT. Symptomatic hyperuricaemia occurring prior to episodic gout therefore represents an earlier or alternative disease presentation. Changes to the ACR/ EULAR classification criteria to include non-episodic foot pain in the presence of US features of gout may increase the sensitivity of disease classification at an early stage, leading to improved future treatment strategies and long-term outcomes.
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POS0141 ACTIVE SCREENING FOR GOUT IDENTIFIES A LARGER CARDIOVASCULAR POPULATION AT HIGH MORTALITY RISK

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Background: We have recently revealed by active screening that about a third of gout cases in the cardiovascular population is not registered in records [1], highlighting the value of field studies.
Objectives: To assess whether gout screening in patients hospitalized for cardiovascular events may also help identify patients at higher risk of mortality after discharge.
Methods: A retrospective cohort field study, carried out in 266 patients admitted for cardiovascular events in the Cardiology, Neurology and Vascular Surgery units of a tertiary centre in Spain. The presence of gout was established by records review and face-to-face interview, according to the 2015 ACR/EULAR criteria. The occurrence of mortality during follow-up and its causes were obtained from electronic medical records. The association between gout and subsequent mortality was tested using Cox regression models. Whether covariates affect the gout-associated mortality was also studied.
Results: Of 266 patients recruited at baseline, 17 were excluded due to loss to follow-up (>6mo), leaving a final sample of 249 patients (93.6%). Thirty-six cases (14.5% of the sample) were classified as having gout: twenty-three (63.9%) had a previously registered diagnosis, while 13 (36.1%) had not and was established by the interview.
After discharge, the mean follow-up was 19.9 months (SD ±8.6), with a mortality incidence of 21.6 deaths per 100 patient-years, 34.2% by cardiovascular causes. Gout significantly increased the risk of subsequent all-cause mortality, with a hazard ratio (HR) of 2.01 (95%CI 1.13 to 3.58). When the analysis was restricted to gout patients with registered diagnosis, the association remained significant (HR 2.89; 95%CI 1.54 to 5.41).
The adjusted HR for all-cause mortality associated with gout was 1.86 (95% CI 1.01-3.40). Regarding the causes of death, both cardiovascular and non-cardiovascular were numerically increased.
Secondary variables rising the mortality risk in those with gout were age (HR 1.07; 1.01 to 1.13) and coexistent renal disease (HR 4.70; 1.31 to 16.84), while gender, gout characteristics and traditional risk factors showed no impact.
Conclusion: Gout was confirmed an independent predictor of subsequent all-cause mortality in patients admitted for cardiovascular events. Active screening for gout allowed identifying a larger population at high mortality risk, which may help tailor optimal management to minimize the cardiovascular impact.
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Fine-tuning strategies (beyond treatments) to reduce the impact of PsA

POS0142 MINIMAL DISEASE ACTIVITY IN PATIENTS WITH PSORIATIC ARTHRITIS AND ASSOCIATED FACTORS: REAL LIFE DATA FROM A SINGLE CENTER

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Background: Psoriatic arthritis (PsA) is a heterogeneous disease and GRAPPA have proposed Minimal disease activity (MDA) as a composite outcome measure and has been validated in PsA.
Objectives: In this study, we aimed to evaluate the characteristics, MDA frequencies, first biological disease modifying antirheumatic drugs (b-DMARD) continuation rate and associated factors in our PsA cohort.
Methods: PsA patients who fulfilled the CASPAR classification criteria and had at least six months of follow-up data were evaluated cross-sectionally for MDA.Clinical data were collected from patient charts with standard forms.b-DMARD treatment was initiated in patients who did not respond to at least one conventional synthetic (cs)

DMARD for at least three months. Only anti-TNFs were used as a first line b-DMARD therefore secukinumab (Secu) was used after first line b-DMARD treatment. Adalimumab, certolizumab, etanercept, golimumab were grouped as subcutaneous (s.c) anti-TNFs. MDA was defined as meeting five out of seven criteria during follow-up [1].
Results: One hundred seventy-two patients (61% female) were included into the analysis. The mean follow-up time was 105.4±76 (6-444) months and the mean age was 50.2±13.3 (16-81) years. Mean age of onset for PsA was 38±11.9 (11-79) years; mean PsA and PsO duration were 140±90.7 (7.9-528) and 253±138 (0-756) months, respectively. Methotrexate was the most commonly used (88 %) cs-DMARD and biological DMARDs were used in 74 patients (43.3%)
Overall, 95 patients (55.2 %) were observed at MDA which was significantly lower in b-DMARD users compared to only cs-DMARD users (45.9 % vs 61.9 %; p=0.038, OR: 4.3). MDA did not differ according to PsA subtypes. The addition of cs-DMARD treatment to b-DMARDs did not affect MDA frequency In univariate analysis; higher MDA frequency was associated with older age (p=0.002), longer PsO duration (p=0.036), late onset of PsA (p=0.007) and continuation of first b-DMARD (OR:13.9 p<0.001). In multivariate analysis, older age (OR:1.3;95 % CI:1.02-1.68), late onset PsA (OR:1.03; 95 % CI:1.01-1.067) and continuation of first b-DMARD (OR:46.8; 95 % CI:1.6-1371) were associated with MDA.
Conclusion: Although frequency of MDA in our cohort was consistent with previous reports, a significant number of patients could not achieve MDA. Frequency of MDA was found to be lower in b-DMARD users compared to cs-DMARD users, possibly resulted from initiation of b-DMARD in patients with higher disease activity. Higher MDA rate was associated with higher continuation rate at first line b-DMARD treatment (TNF-inhibitor) and decreased gradually after b-DMARD switches. Although combined use of cs-DMARD with b-DMARDs did not increase the frequency of MDA, it was associated with higher b-DMARD retention. MDA is a useful outcome measure in daily follow-up of PsA patients and the importance of reaching sustained MDA for prognosis should be investigated further.
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Table 1. b-DMARD responses, continuation rate and frequency of achieving MDA in patients with PsA

b-DMARD treatment	Mean (median) duration (month)	Continuation rate n, (%)	Primary inefficacy n, (%)	Secondary inefficacy n, (%)	MDA n, (%)
First line b-DMARD (n=74)	50.4 (36)	37 (50)	9 (24.3)	17 (46)	34 (45.9)
*s.c TNF inhibitors (n=62; 83.8 %)	50.8 (35.5)	32 (51.7)	8 (26.7)	9 (30)	31 (50)
Infliximab (n=12; 16.2 %)	13.8 (11)	3 (25)	1 (11.1)	7 (77.8)	3 (25)
Second line b-DMARD (n=29)	28.4 (13.5)	15 (51.7)	5 (35.7)	3 (21.4)	8 (27.6)
*s.c TNF inhibitors (n=22; 75.9 %)	28.6 (15)	11 (50)	4 (36.4)	2 (18.2)	5 (22.7)
Infliximab (n=5; 17.2 %)	35.2 (36)	3 (60)	-	-	2 (40)
Secukinumab (n=2; 6.9 %)	9 (9)	1 (50)	1 (50)	-	1 (50)

s.c:subcutaneous

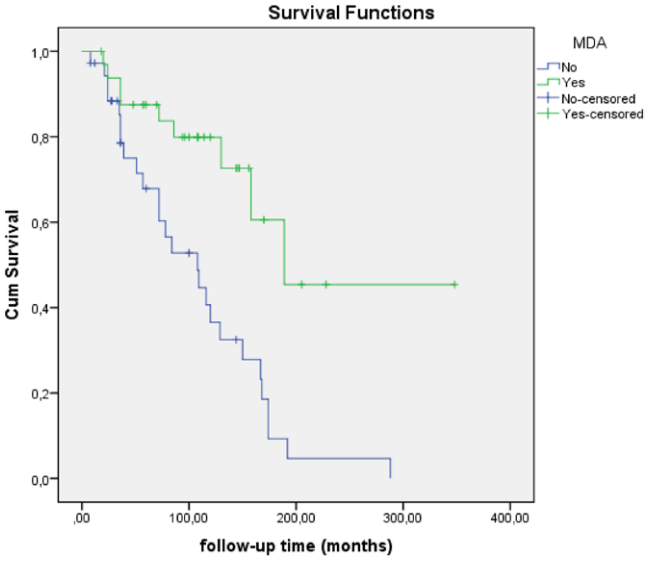

Figure 1. Comparison of b-DMARD retention according to MDA status in patients with ongoing first line b-DMARD treatmentLog rank: p=0.001

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POS0143 POST-STRESS ULTRASOUND ASSESSMENT OF THE ACHILLES TENDON IS USEFUL TO DIFFERENCIATE PSORIATIC ARTHRITIS FROM THE PHYSIOLOGICAL ADAPTATION TO EXERCISE

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Background: Achilles enthesitis is the most accessible psoriatic arthritis hallmark to assess through ultrasound scan. Recently it has been demonstrated that continuous mechanical stress such as experimented by runners can drive to the development of physiological morphological changes that resembles those observed in psoriatic arthritis. In a subject with the suspicious diagnostic of psoriatic arthritis who practice any sports associated to continuous impact over the heels, the challenge to determine in what extent the morphological changes are linked to the exercise or to the disease, is remarkable.
Objectives: To determine morphological differences between patients with psoriatic arthritis, trained runners and sedentary volunteers through ultrasound scan of the Achilles tendon.
Methods: An ultrasound scan of the Achilles tendon was performed to the following subjects: Patients with diagnosis of psoriatic arthritis with a DAPSA score of low activity in at least six months and with history of heel pain in the past, volunteers runners with not less of 3-year sport activity at least three times a week and sedentary volunteers. In the group of patients, ultrasound scan was performed over the feet with history of heel pain. In the case of volunteers, the ultrasound scan was performed in the dominant feet. The selection of volunteers was not randomly-based in order to match their age and sex to the patients as much as possible. Besides demographic features, a comparison between tendon thickness at the level of the calcaneus bone border and the height of the retrocalcaneus bursae in the longitudinal axis were performed through ANOVA test. Power Doppler signal was scaned in all subjects before and after a controlled mechanical stress of the Achilles tendon by climbing stairs (100 steps, two times).
Results: Female/male distribution of the group of patients, runners and sedentary people were: 12/10, 18/18 and 20/18, respectively. Achilles tendon mean thickness ± standard deviation was 6.61 ± 1.05, 5.91 ± 1.44 and 4.61 ± 2.1mm, respectively (*P*=0.01). Retrocalcaneus bursae height was 3.42 ± 0.21, 3.22 ± 0.27 and 2.21 ± 0.31 (*P*=0.01). Basal PD signal was present into the enthesis of 2/22, 1/36 and 0/38, respectively (P not significant). After exercise, PD signal was present in 8/22, 5/36 and 0/38, respectively (P<0.001).
Conclusion: Power Doppler signal after exercise was identified as the most relevant ultrasound hallmark to distinguish a patient with psoriatic arthritis from a trained runner, even when psoriatic arthritis were considered as low activity. Post exercise ultrasound scan should be considered as a diagnosis tool in sportsmen with suspicious of psoriatic arthritis, until further studies confirm our findings.
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POS0144 NOVEL APPLICATION OF OPTICAL COHERENCE TOMOGRAPHY ANGIOGRAPHY AND NAILFOLD CAPILLAROSCOPY IN PSORIATIC ARTHRITIS - DIAGNOSTIC AND PROGNOSTIC ACCURACY IN RELATION TO PSORIASIS AND HAND OSTEOARTHRITIS

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Background: Nailfold video capillaroscopy (NVC) and angiographic optical coherence tomography (OCTA) have potential in diagnosing psoriatic arthritis (PsA) and differentiating it from psoriasis vulgaris (PsO) and hand osteoarthritis (OA).
Objectives: To assess the diagnostic properties of NVC and OCTA in patients with PsA compared to patients with PsO and hand OA based on nailfold capillary patterns.
Methods: Patients with distal interphalangeal-joint PsA and nail involvement (n=50), PsO with nail involvement (n=12); and OA (n=13) were included in this cross-sectional study. Capillaries were evaluated semi-quantitatively and qualitatively. Differences in capillary findings between groups were assessed using