

AB1579

ULTRASOUND JOINT ASSESSMENTS INCREASE DETECTION OF POLYARTICULAR JOINT INVOLVEMENT IN CHECKPOINT INHIBITORS-INDUCED ARTHRITIS

Keywords: Malignancy, Inflammatory arthritides, Ultrasound

L. Meric de Bellefon¹, S. Aspeslagh², A. Franck³, B. Jean-François⁴, P. Durez¹.

¹Cliniques universitaires Saint-Luc (UCLouvain), Rheumatology, Bruxelles, Belgium; ²UZ Brussel, Oncology, Jette, Belgium; ³Cliniques universitaires Saint-Luc (UCLouvain), Pneumology, Bruxelles, Belgium; ⁴Cliniques universitaires Saint-Luc (UCLouvain), Oncology, Bruxelles, Belgium

Background: Checkpoint Inhibitors (CPI) Induced arthritis (IA) is an immune related adverse event (irAEs) occurring in 0.5 to 2% of CPI-treated patients between 3 weeks up to 24 months after initiation of therapy. IA is usually described as a seronegative oligoarticular inflammatory joint disease but IA has been for long underdiagnosed and inappropriately evaluated.

Objectives: To evaluate the added value of a systematic joint ultrasound assessment in these patients by the rheumatologist.

Methods: Patients referred by their oncologist to the Rheumatology Department for suspected arthritis had a clinical swollen joint count and a joint ultrasound assessment (GE Logiq E9 Ultrasound Machine with ML6-15-D Matrix Linear Probe). Target joints were elbows, wrists, MCP 2-5, knees, ankles and MTP1-5. The swollen joint count performed by the oncologist was compared to the one made by the rheumatologist and the US assessment. A joint was considered as positive by US assessment in case of grey-scale ≥ 1 in a scale of 3.

Results: 9 patients (6 males and 3 females) were assessed. Mean age was 66.1 years (SD 11 years). 4 were treated for metastatic melanoma, 1 for renal cell carcinoma (RCC), 3 for lung cancer, 1 for uterine cancer and 1 for bladder carcinoma. They received a monotherapy with pembrolizumab (4/9), nivolumab (2/9), atezolimumab (1/9), darvalumab (1/9). None had received corticosteroids. 5 out of the 9 patients were referred for an oligoarticular (swollen joint count <5) presentation by the oncologist, 2 out of 9 for a polyarticular (swollen joint count ≥ 5) presentation and 2 for a PMR-like presentation. Whereas the rheumatological and the US assessments confirmed the polyarticular diagnoses made by the oncologists, the 5 oligoarticular-labelled patients had polyarticular involvement after the rheumatologist and US assessments. In the 2 patients referred for a PMR-like disease, US assessments showed one polyarticular and one oligoarticular presentation. None of the 9 patients had positive rheumatoid factors (RF) or anticitrullinated peptides antibodies (ACPAs).

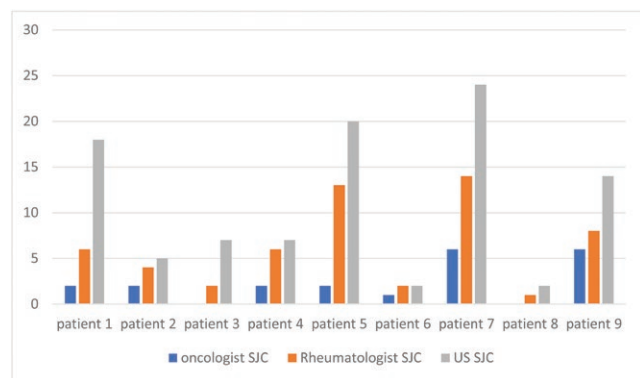


Figure 3. Number of swollen joints (SJC) for each patient according to the oncologist, the rheumatologist and the ultrasound assessment.

Conclusion: In this small group of patients with CPI-IA, In this small group of patients with CPI-IA, we found that US joint assessment led to a better classification of polyarticular joint involvement, present in the majority of the cases. Our results emphasise the importance of a multidisciplinary approach of these patients and support the use of US joint assessments in CPI-IA patients.

REFERENCES: NIL.

Acknowledgements: NIL.

Disclosure of Interests: None Declared.

DOI: 10.1136/annrheumdis-2023-eular.3263

AB1580

ULTRASOUND FINDINGS IN PATIENTS WITH GOUT IN A POPULATION OF THE DOMINICAN REPUBLIC

Keywords: Ultrasound, Gout, Prognostic factors

D. García¹, R. A. Alvarez Santana¹, L. Perez Rodriguez¹, T. Polanco Mora¹, L. Concepción Sanchez¹, I. Mercedes¹, I. Paulino¹, E. Rodriguez Bautista¹, T. Valdez¹, A. Feriz¹, R. Muñoz Louis¹. ¹Hospital Padre Billini, Rheumatology, Distrito Nacional, Dominican Republic

Background: Hyperuricemia is an increase in the serum concentration of monosodium urate (MSU). Gout is secondary to the inflammatory response elicited by the deposition of UMS in the tissues. It is the most frequent inflammatory arthropathy in the general population. [1] Its prevalence has been estimated at 2-3% of the adult population. [2] The ultrasound findings observed are considered within the ACR/EULAR 2015 criteria, which derive from the presence of UMS deposits in the subcutaneous tissue and in intra- and periarticular areas (cartilage, tendons, ligaments, and bursae). [3]. There are 2 specific findings of MSU deposits: 1) enhanced echogenicity of the chondrosynovial margin (double contour sign), presence of hyperechogenic aggregates, which, in turn, can have 3 forms of presentation: hyperechogenic dots (<1 mm) within a joint effusion, (cotton-wool areas) (<1 cm) homogeneous without posterior acoustic shadow and larger tophi with calcifications and posterior acoustic shadow [4].

Objectives: To identify the ultrasound findings in patients with gouty arthritis in a population of the Dominican Republic.

Methods: Descriptive, prospective observational study. From the cohort of patients from the Rheumatology service of the Hospital Docente Padre Billini, patients from the outpatient clinic were evaluated from June to December 2022. Inclusion criteria: > 18 years, diagnosis of gouty arthritis according to ACR\ EULAR 2015 criteria, presence of at least 1 attack of gouty arthritis, performance of joint ultrasound Exclusion criteria: Osteosynthesis material in areas evaluated by ultrasound and/or infiltration, traumas of less than 3 months in the evaluated joints. Elbows, wrists, 2nd metacarpophalangeal MCP, knees, and 1st metatarsophalangeal MTF were evaluated by ultrasound, recognizing positive findings of double contour sign, hyperechogenic aggregates, erosions, synovitis, and irregularities according to OMERACT definitions. Made with the Siemens Acuson X 150 ultrasound machine, with a 13 mHz transducer. Descriptive statistics were performed with SPSS 25 V2.

Results: 52 met inclusion criteria. 100% male, mean age 59 ± 16.1 years, mean disease duration 8.6 years, mean serum uric acid 9.5 mg/dL. BMI: overweight 32.7% (17), grade I obesity 21.2% (11), grade II obesity 40.4% (21). Diabetes mellitus 55.8% (29). Arterial hypertension 57.7% (30). Dyslipidemia 80.2% (42). Colchicine 61.5% (32), Allopurinol 48.1% (25). Febuxostat 48.1% (25), NSAIDs 48.1% (25), Prednisone 46.2% (24), Benzbromarone 3.8% (2) Ultrasound findings 55.7% (29): Elbows: irregularities 37.9% (11), Tophi 37.9% (11), erosions 20.7% (6), Carpals: Erosions 10.3% (3), aggregates 10.3% (3), power Doppler 2.69% (2), irregularities 31% (2), Knees: erosions 27.6% (8), irregularities 27.6% (8), double contour 20.6% (6) power doppler 10.3% (3), tibiotalar: irregularities 27.6% (8), erosions 17.2% (5); 1st MTFs: erosions 48.2% (14), irregularities 27.6% (8), aggregates 3.4% (1).

Conclusion: The study demonstrated that more than half of patients with gout present structural lesions by ultrasound according to OMERACT. The elbows are the most affected joints with the presence of tophi, followed by the first metatarsophalangeal joint with the presence of erosions.

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Acknowledgements: NIL.

Disclosure of Interests: None Declared.

DOI: 10.1136/annrheumdis-2023-eular.4694