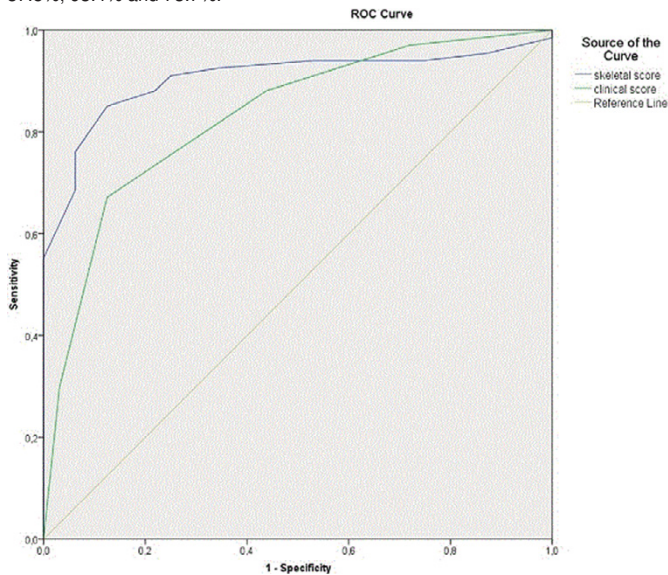of 67.2%, specificity of 87.5%, positive predictive value (PPV) of 91.8% and a negative predictive value (NPV) of 56.0% for the diagnosis of PMR. A total skeletal score of 16 or more had a sensitivity, specificity, PPV, NPV of respectively 85.1%, 87.5%, 93.4% and 73.7%.

ROC Curve

Conclusions: FDG-PET before starting glucocorticoid therapy improves the diagnostic accuracy compared to a clinical scoring system in patients with clinical suspicion of PMR.

References:

[1] Blockmans D, De Ceuninck L, Vanderschueren S, Knockaert D, Mortelmans L, Bobbaers H. Repetitive 18-fluorodeoxyglucose positron emission tomography in isolated polymyalgia rheumatica: a prospective study in 35 patients. Rheumatology (Oxford) 2007; 46: 672–7.

Disclosure of Interest: None declared

SAT0613   **HIGH PREVALENCE OF SUBCLINICAL ATHEROSCLEROSIS IN GOUT AND ASYMPTOMATIC HYPERURICEMIA: A STUDY BASED ON CAROTID ULTRASOUND**

C. Bertolazzi [1], M. Gutierrez [2], R. Espinosa [3], M. Martínez-Lavin [4], L.H. Silveira [4], C. Lozada [2], J. Moreno [3], E. Cruz [5], B. Olivares [5], C. Pineda [3], A.C. Lozada [2]. [1]Division of Neuroscience; [2]Division of Musculoskeletal and Rheumatic Diseases; [3]Rheumatology Department, Instituto Nacional de Rehabilitación; [4]Rheumatology Department, Instituto Nacional de Cardiología Ignacio Chavez; [5]Epidemiology and Social Medicine Department, Instituto Nacional de Rehabilitación, Ciudad de Mexico, Mexico

Background: Accelerated atherosclerosis is known in gout. Hyperuricemia is considered an independent risk factor for cardiovascular (CV) disease. Evidence supporting both proatherogenic and prothrombotic states in HU is also published Ultrasound (US) measurement of the carotid intima-media thickness (cIMT) is a recognized measure of premature subclinical atherosclerosis with a predictive value respect to vascular events.

Objectives: To determine the prevalence of increased cIMT, as sign of subclinical atherosclerosis, by an automated US method, and the associated risk factors in patients with gout and asymptomatic hyperuricemia (aHU)

Methods: 138 patients with gout, 105 with aHU and 99 age and sex matched healthy controls were enrrolled. For all patients were recorded: clinical history, disease duration, smoking, ischemic heart disease, comorbidities (diabetes mellitus, high blood pressure, dyslipidemia, renal insufficiency, obesity), and current therapy. ESR and serum CRP, total and HDL cholesterol, triglycerides, glucose, creatinine and uric acid were recorded. Patients with history of CV and cerebrovascular events or autoimmune diseases were excluded.

US examinations of both common carotids were performed by an experienced sonographer trained in cIMT examination, with a Esaote My Lab 70XVG, equipped with a linear probe (4–13 MHz) and an automatic IMT measure software. The definitions of Mannheim cIMT Consensus were adopted

Results: A total of 684 common carotids were assessed. The prevalence of increased cIMT was 47.1%, 47.6% and 1% in patients with gout, aHU, and control group, respectively. The final adjusted logistic regression for patients with gout showed that time of disease progression (OR =0.79, 95% CI 0.66–0.95) and previous smoking (OR =0.32, 95% CI, 0.10–0.97) were associated with cIMT increase ($p < 0.05$) whereas the uric acid levels (OR =1.66, 95% CI 1.07–2.56) was associated with an increased cIMT in aHU. No significant correlation was found with the other variables. No differences in US findings were found between gout and aHU (p=0.936). There was a significant difference in cIMT in gout versus control (p=0.0001) and aHU versus control (p=0.0001).

Conclusions: Our results demonstrate that patients with gout and aHU without clinically evident cardiovascular disease have a high prevalence of subclinical atherosclerosis. Disease duration and levels of uric acid are independent factors related with increased cIMT in gout and aHU respectively. These results support the importance of screening for CV risk and to include carotid ultrasound in CV prevention strategies in these patients.

Disclosure of Interest: None declared

SAT0614   **ULTRASOUND AND URATE CRYSTAL DEPOSITION: HOW MANY JOINTS TO SCREEN?**

D. Bhadu [1], S.K. Das [2], A. Wakhlu [3], U. Dhakad [2]. [1]Department of Rheumatology, All India Institute of Medical Sciences, New Delhi; [2]Department of Rheumatology; [3]Department of Radiodiagnosis, King george medical university, lucknow, India

Background: Gout is one of the most common inflammatory joint disease in males. The new ACR/EULAR 2015 gout classification criteria has included imaging as a scoring item [1]. Naredo et al [2], found that in intercritical gout, assessment of one joint (ie, radiocarpal) and two tendons (ie, patellar and triceps) for HAGs, and three articular cartilages (ie, first metatarsal, talar and second metacarpal/femoral) for double contour sign (DCS) showed the best balance between sensitivity and specificity (84.6% and 83.3%, respectively). Ultrasound screening at these 6 sites is time consuming and not feasible in a busy outpatient service. So we aimed to compare the two sites (knee and 1st MTP joints) with these 6 sites for the ultrasound detected abnormalities namely DCS and HAGs in patients of gout particularly with the idea to find the best possible minimum joint combination without compromising the sensitivity and specificity.

Objectives: To compare the ultrasound-detected abnormalities namely double contour sign (DCS) and hyperechoic aggregates (HAGs) at knee and first metatarsophalangeal (1st MTP) joint (two sites) verses six sites (knee joint, 1st MTP joint, radiolcarpal joint, patellar tendon and triceps tendon) in patients of gout.

Methods: Forty seven gout and fifty controls (serum uric acid <7mg/dl) with age more than 18 years were included in this study. DCS was looked for at three articular cartilage sites (first metatarsal, tibiotalar and femoral condyle) whereas HAGs were looked for at one joint site (radiocarpal joint) and two tendon sites (patellar tendon and triceps tendon). Ultrasound findings of all three groups were compared.

Results: We found sensitivity, specificity, positive predictive value, negative predictive value and positive likelihood ratio of two joint areas (knee and 1st MTP) ultrasound findings for gout were 87.2%, 84%, 83.7%, 85.6% and 5.5 respectively. Similar sensitivity, specificity, positive predictive value, negative predictive value and positive likelihood ratio were observed with 6 sites ultrasound findings. Amongst controls 17.5% were found to have these abnormal ultrasound findings by both two joint area and 6 sites exams.

Applied Diagnostics	Sensitivity	Specificity	PPV	NPV	LR+	LR–
Knee joint DCS	53.2	94.0	89.3	68.1	8.9	0.49
1st MTP Joint DCS	51.1	84.0	75.0	64.6	3.2	0.58
1st MTP joint HAGs	44.7	100.0	100.0	65.8	–	0.55
1st MTP Joint DCS+HAGs	72.3	84.0	81.0	76.4	4.5	0.32
Talar joint DCS	40.5	100.0	100.0	69.4	–	0.59
Patellar tendon HAGs	23.4	100.0	100.0	58.1	–	0.76
Triceps tendon HAGs	14.9	100.0	100.0	55.6	–	0.85
Radiocarpal joint HAGs	4.3	100.0	100.0	52.6	–	0.95
Knee and MTP joint abnormalities	87.2	84.0	83.7	85.6	5.5	0.15
Ultrasound abnormalities at Six examined site	87.2	84.0	83.7	85.6	5.5	0.15

Conclusions: Screening of two joint areas (knee and 1st MTP) has similar sensitivity, specificity and positive likelihood ratio as compared to six sites in diagnosing gout. While utilizing lesser time in examination.

References:

[1] Neogi T, Tim L, Dalbeth N, Fransen J, Schumacher HR, Berendsen D, et al. 2015 Gout classification criteria: an American College of Rheumatology/European League Against Rheumatism collaborative initiative. Annals of the Rheumatic Diseases. 2015;74:1789.

[2] Naredo E, Uson J, Jiménez-Palop M, Martínez A, Vicente E, Brito E, et al. Ultrasound-detected musculoskeletal urate crystal deposition: which joints and what findings should be assessed for diagnosing gout? Ann Rheum Dis 2014;73: 1522–1528.

Disclosure of Interest: None declared