Laboratory features	Acute	Subacute	Chronic tophaceous	Well controlled	*p-value*
Uric acid	7.22 ± 2.07	6.77 ± 2.40	6.94 ± 2.20	7.24 ± 1.65	0.780
ESR	36.36 ± 32.52	18.87 ± 18.98	16.85 ± 18.30	8.29 ± 7.67	**0.000****
CRP	1.45 ± 2.31	0.45 ± 1.12	1.33 ± 4.58	0.12 ± 0.08	**0.008****
Lipid profiles					
Total cholesterol	193.9 ± 46.06	208.39 ± 47.77	185.21 ± 49.08	163.14 ± 44.93	**0.042***
HDL	46.10 ± 11.96	43.28 ± 9.51	43.58 ± 12.98	42.57 ± 8.76	0.539
Triglyceride	216.85 ± 171.69	221.55 ± 117.9	207.05 ± 108.78	180.57 ± 125.70	0.645
LDL	126.81 ± 55.04	126.05 ± 41.27	119.98 ± 38.95	111.4 ± 25.68	0.825
Oxidized LDL	785.38 ± 369.14	775.5 ± 272.80	653.23 ± 430.99	366 ± 173.43	**0.001****

Conclusion: The levels of oxLDL in gout patients were significantly different according to inflammatory status. The oxLDL may be associated with inflammation process in gout patients.
Disclosure of Interests: None declared
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AB0878 CARDIOVASCULAR GOUT

Eleanora Mikhnevich[1], Tatiana Pavlovich[2]. [1]*Belarusian State Medical University, Internal Medecine, Rheumatology, Minsk, Belarus*; [2]*Belarusian State Medical University, Internal Medecine, Minsk, Belarus*

Background: Gout is characterized by clinical heterogeneity and associated with multicomorbidity. In clinical practice, we can highlight a group of patients suffering from cardiovascular diseases (CVD) and requiring constant medication, in which the gout joins later.
Objectives: To study the group of patients with gout developing on the basis of pre-existing CVD at the gout onset.
Methods: 240 patients from our Center database with confirmed gout were included in our study. Comorbidities were registered before the gout onset, at its appearance. The study group consisted of 140 patients with CVD: hypertension with duration for 5 years and treated by medication, CHD, atrial fibrillation, CHF and stroke. The comparison group consisted of patients with gout, but without CVD (n=100).
Results: Among patients with pre-existing CVD, the gout debuted later, at the age of 60 (55-65) years (p 0.001). The most frequent comorbidity was HTN – 83.6% (n=117) (OR=7.63; 95%CI 5.33-10.93; $\chi2$ = 48.9, p 0.001). Diabetes mellitus (OR=4.47; 95%CI 3.65-5.48; F = 0.035, p = 0.005) also dominated in this group. At the same time, BMI $\geq$ 25 kg/m^2 was prevalent in comparison group (OR=19.46; 95%CI 2.84-133.2; $\chi2$ =15.4, p 0.001). Alcohol abuse was considerably lower – 37.1% (n=52) (OR=54.72;95%CI 17.87-167.44; $\chi2$ =88.8, p 0.001), but medication use was higher – diuretics in 16.4% (n=23) (OR=6.36; 95%CI 5.28-7.64; F=0.045, p 0.001) and low-dose aspirin in 35.0% (n=49) of patients (OR=17.41; 95%CI 14.80-20.47; F=0.147, p 0.001). In the study group, the urolithiasis was evidenced more often (OR=4.13; 95%CI 3.42-4.98; $\chi2$ = 12.1, p 0.001), and the presence of CKD with GFR 60 ml/min/1.73 m^2 was observed in 15.0% (n=21) of patients (F=0.069, p 0.001), but not found in the comparison group. The percentage of patients with metabolic syndrome (3 components according to ATP III) did not differ between the groups (p 0.05).
The number of patients having a concentration of uric acid (UA) in blood 360 mkmol/l and 480 mkmol/l was similar in the both study and comparison groups (p 0.05). At the same time, the cases of UA 600 mkmol/l were higher in study group by 13.1% (OR=1.86; 95%CI 1.50-2.38; $\chi2$= 5.94, p = 0.015).
Conclusion: Among our patients, the gout developing on the basis of pre-existing CVD is one of the variant of a debuting gout. The group of patients with so called "cardiovascular gout" is characterized by later gout onset, comorbidities typical for CVD, prevalence of medication (low-dose aspirin, diuretic) and renal mechanisms-triggers of gout. In these patients, the maximal concentration of UA in blood (600 mkmol/l) was registered more frequently than in patients with primary gout.
Disclosure of Interests: None declared
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AB0879 INTRATENDINOUS TOPHI IN PATIENTS WITH GOUT: PERSISTENCE IN SPITE OF CLINICAL CONTROL AND SCOPE OF URICEMIA THERAPEUTIC TARGET

Carlos Guillén-Astete, Patricia Morán-Alvarez. *Hospital Ramón Y Cajal, MADRID, Spain*

Background: The tendon affectation of the gout consists of the deposit of uric acid in territories habitually perientésicos causing its accumulation in the substance of the body of the tendon or occupying part of it and protruding towards zones of extension. Their presence is usually not clinically accounted for except when they obstruct tendon displacement and therefore their role as part of the clinical picture of patients with gout is often underrepresented.
Objectives: The purpose of this study is to determine the ultrasound response of these tophi once the clinical activity has been controlled and the serum uricemia therapeutic target of 6.0mg/dL has been reached.
Methods: Quasi-experimental study type before after. We include 19 patients with tophaceous gout diagnosed between 2012 and 2014 and followed regularly in three rheumatology consultations through clinical, analytical and ultrasound controls. We compared the ultrasound records of static images of your Achilles, patellar and tricipital tendons at the time of diagnosis and in your last review. The longitudinal measurements of the tophi obtained were compared. The independent variable was the evaluation time (before and after) and the dependent variables were the quantification of tophi and their measurements in the longitudinal axis.
Results: All the patients were male. Mean age of 58 SD 6.8 years (Range 29-76). Mean basal uric acid 11.3mg/dL. Mean follow-up time to reach therapeutic objective 18 SD 10 months (Range 9-61). Median number of intratendinous tophi (counting one for each tendon of 6 possible tendons): 2. Fashion 2 (Range 1-4). Mean longitudinal diameters: Achilles (8 cases) 18.3 SD 4.2 mm; Rotulian (11 cases) 15.3 SD 3.1 mm; Tricipital (6 cases) 9.8 SD 5.1mm. Hypouricemiant treatment administered: Alopurinol 12; Alopurinol followed by Febuxostat 7; Febuxostat only 0. In the ultrasound study, once the therapeutic objective was reached, the accounting of the intratendinous tophi Achilles and patellar tophi remained identical. One tricipital tofo disappeared completely and the rest were maintained. The longitudinal measurements of tophi that did not disappear were as follows: Achilles 18.0 SD 3.2mm (P=0.805); Rotulian 14.9 SD 3.2 (P=0.803); Tricipital 7.9 SD 3.2 (N=5, P=0.489). No differences were detected when comparing the two hypouricemiant treatment sequences.
Conclusion: Although this is a small retrospective cohort, our results show a poor ultrasound response of reduction of intratendinous tophi reaching the serum uricemia target of 6.0mg/dL. This observation raises two reflections: (1) On the one hand, and as already proposed, the therapeutic target of uricemia in our patients could require an even stricter adjustment and (2) on the other hand, it would be necessary to consider whether the inclusion of regulated ultrasound scans of certain tendons would have clinical value if they were routinely incorporated into the study of our patients with gout.

DISCLOSURE OF INTERESTS
None declared
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AB0880 ACUTE GOUTY ARTHRITIS RELATED EMERGENCY DEPARTMENT VISITS AMONG US VETERANS: CHARACTERISTICS, PREDICTORS AND AREAS OF IMPROVEMENT

Debendra Pattanaik, Zunaira Ali, Amado Freire. *University of Tennessee Health Science Center, Memphis, United States of America*

Background: Gout is quite prevalent among United States veterans and many do not achieve optimal levels of uric acid (< 6 mg/dl).[1] This suggests that there are large number of veterans who are at risk for gout flare, leading to utilization of health care resources such as emergency department (ED) and outpatient office visits. We investigated the ED visit patterns among veterans with history of gout and the factors contributing to ED visits.
Objectives: The objectives of the study were to identify the risk factors for ED visits by veterans for gout flare up. Future remediation of the risk factors would reduce utilization of health care resources.
Methods: This was a retrospective chart review of veterans diagnosed with gout in the ED at VA Medical Center Memphis TN between January 1st, 2011 and December 31st, 2016 using ICD-9 codes. A rheumatologist reviewed all cases and only confirmed cases of gout were included in the study. There were 2516 veterans seen for acute gout during the

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study period and of these, random selection of 10% i.e. 250 subjects were considered for the study. Baseline demographics, medical comorbidities, serum uric acid level, medication history, and information whether they were followed by rheumatologist or primary care physician (PCP) were extracted from electronic health record.

We used Stat view Version 5.01 (SAS Institute Inc. Cary, NC) for analysis. We described data with frequency terms, continuous data by mean ± standard deviation, and categorical data by percent. Univariate analysis identified predictors of interest that were later incorporated in the best fit model with logistic regression. A p value of ≤ 0.05 was considered statistically significant.

Results: The mean age of subjects was 61 +/-11 years, mean BMI was 32 +/- 7 kg/m2, 98% were males and 80% were African Americans. 26% of subjects had history of alcohol use, 89% had hypertension and 88% had chronic kidney disease (CKD stage ≥2). 86% of the subjects were followed by primary care physician (PCP), and 5% of them were followed by rheumatology and rest of the 9% were non- compliant. 30% of subjects were receiving urate-lowering therapy and 23% of patients were on gout prophylactic therapy. 21% of patients had multiple (≥ 2) visits to the ED. The mean uric acid level was 8.5 ± 2.1 mg/dl for subjects with single visit compared to 9.04± 2.1 mg/dl for multiple visits to the ED (P = 0.09).

In the univariate analysis, CKD (stage ≥ 2) and higher uric acid level were associated with increased ED visits (P = 0.09) and not being on urate lowering therapy was also associated with increased frequency of ED visits (P = 0.02). On logistic regression analysis, irrespective of the type of physician follow up (PCP vs rheumatologists), being on urate-lowering therapy was associated with reduced frequency of ED visits. (P=0.02).

Conclusion: Urate-lowering therapy (ULT) was associated with reduced ED visit irrespective of follow up care provided by PCP or rheumatologist. Given that only one third of our patients were on ULT, improving ULT dispensing by the physician and patient compliance with ULT can decrease health care utilization.

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AB0881 DESCRIPTIVE ANALYSIS OF PATIENTS WITH OSTEOGENESIS IMPERFECTA IN A TERCIARY HOSPITAL IN MADRID

Cristina Pijoan Moratalla, María Andreina Teran Tinedo, Jose Renato Quiñones Torres. *Hospital Ramón YCajal, Reumatología, Madrid, Spain*

Background: Osteogenesis imperfecta (OI) is an inherited connective tissue disorder with an incidence of 1 per 20,000 births. It is also called "brittle bone disease" and is most commonly caused by mutations in genes encoding type I collagen or proteins involved in its posttranslational modification. Most patients have an autosomal dominant mutation in *COL1A1* or *COL1A2.* The severity of the clinical presentation depends upon the effect of the mutation that occurs, having many different phenotypic presentations. In the most severe forms, patients suffer multiple fractures with minimal or no trauma whereas mild forms may only manifest with premature osteoporosis. Attending to the clinical presentation, radiographic findings and the mutation that occurs, 11 different types have been described, with type I and III being the most prevalent. Many treatments have been studied, but none has been found to be curative. The most frecuently used are biphosphonates which try to prevent bone fragility and reduce the number of fractures but none have been approved specifically for use in either children or adults with OI.

Objectives: The aim of the study is to analyse the clinical characteristics of osteogenesis imperfecta (OI) patients followed in our hospital and to evaluate the different treatments used in their management.

Methods: A retrospective study was conducted. All patients diagnosed with OI and seen in the different departments of our hospital were included and analyzed. A database was created, including both clinical and epidemiological data and a descriptive analysis was carried out.

Results: 25 patients with OI are currently being followed up in our hospital and were included. Although most patients were beeing followed in both the Rheumatology (9) and Orthopedic units (9), 4 were being followed by pediatrics, 1 by endocrinology, 1 by internal medicine and 1 by geriatrics. 72% were female (18) with a mean age at diagnosis of 17 years (range: 1 month to 67 years). All of them had had previous fractures before the diagnosis. The number of fractures during their follow-up varied according to the different types of OI, with an average of 6 fractures (range 3-24) per patient and an average of at least 4.16 orthopedic surgeries each. 12/25 patients were diagnosed in the first ten years of life, being the ones that accumulated the highest number of fractures (96 vs. 54). Only 3 patients had family background of OI, all of them beeing type I. Although only 9/25 patients had undergone genetic study, all 3 cases of type III, which is the most severe, debuted in the first decade of life. Phenotipically 14/25 (56%) had short stature and 18/25 (72%) had blue sclerae, being these less frequent in those patients with debut after 20 years of age, of which 57% (4/7) had normal sclerotics. Only 4 patients suffered from dentinogenesis imperfecta (16%) and 3 from otosclerosis and had hearing problems (12%). Regarding the treatment received, 60% of the patients (15/25) were on current treatment with oral calcium and 64% (16/25) with oral vitamin D supplements. On the other hand only 60% of the patients received biphosphonates (4 were beeing treated with risedronate, 7 with pamidronate, and 4 had received both zoledronic and pamidronate during their lives).

Conclusion: Although a rare disease, OI has an important morbimortality in most patients. Severe cases suffer multiple fractures and undergo several orthopedic surgeries during their lifes. Given the high cost of genetic analysis, this is reserved for the most severe cases which tend to debut at younger ages and are mostly type III. Treatment for this condition is not standardized and is generally reserved for type III OI patients, which is one of the most severe types. Biphosphonates, calcium and vitamin D are usually used in order to try to prevent new fragility fractures but in most cases fracture rates remain high despite treatment.

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AB0882 ACROMEGALY DO NOT INCREASE THE RISK OF VERTEBRAL FRACTURES : A RETROSPECTIVE AND PROSPECTIVE STUDY ON 50 PATIENTS

Charlotte Plard[1], Clarisse Hochman[2], Delphine Drui[2], Bertrand Cariou[2], Yves Maugars[1], Benoit Le Goff[1], Pascale Guillot[1]. [1]*Nantes University Hospital, Rheumatology, Nantes, France*, [2]*Nantes University Hospital, Endocrinology, Nantes, France*

Background: Patients with acromegaly appear to be at an increased risk of vertebral fractures (VFs) despite normal bone mineral density (BMD)[1]. However, these patients could have several endocrine deficits as hypogonadism known to increase the fracture risk risk independently of the GH effects. The physiopathology of GH excess on bone is unclear. In addirion, patients with acromegaly have radiological deformations of the spine, called Erdheim's syndrome, which can overestimate the radiological vertebral fractures.

Objectives: Investigate the prevalence of VFs in our cohort of patients with acromegaly.

Methods: It was a monocentric, retrospective and prospective study. The rheumatologic evaluation was less than 3 years for all patients. For 40% of patients, this evaluation was prospective after the begin of the sudy. Acromegaly patients younger than 80 and followed at the Nantes University hospital in January 2018 were included. Patients were excluded if they had a rheumatologic or endocrinologic disease interfering with the results. The prevalence of radiological vertebral fractures was evaluated on conventional lombar and thoracic spine radiographs using Genant's semi-quantitative assessment. We also assessed qualitative abnormalities of the spine using 3 criteria : osteophytes, disc space narrowing and cuneiform aspect of vertebrae. The X-rays were read by two rheumatologists independently. We analyzed BMD at lumbar spine and total hip, endocrine status and quality of life through 3 questionnaires (AcroQol, specific of acromegaly; Oswestry evaluating the functional impact of pain; HAQ evaluating the functional capacity).

Results: We included 56 patients. 6 patients were excluded : 3 declined, 1 had bone metastasis and 2 had another endocrinologic disease (adrenocortical and panhypopituitarism). We analyzed the prevalence of VFs in 50 patients (19 females, 31 males, median age 53, range 28-79). The average of time between the diagnosis of acromegaly and the last rheumatologic evaluation was 9.1 years. 3 patients (6.1%) had a VF : 1 grade 1 and 2 grade 2 of Genant's assessment. 28% patients were osteopenic and 12% were osteoporotic. Among fractured patients, 2 were osteoporotic and 1 osteopenic. 26% were hypogonadal (100% substituted), 16% had central adrenal insufficiency (100% substituted). 14 women were menopaused (74% of women). Thoracic spine was deformed in 31 patients (61%) and lombar spine in 21 patients (43%), for at leat

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