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SAT0439 RENOPROTECTIVE EFFECT OF URATE LOWERING THERAPY IN GOUTY PATIENTS WITH MODERATE CHRONIC KIDNEY DISEASE

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Background: Approximately 25% of gouty patients suffer from chronic kidney disease (CKD). High serum uric acid (sUA) levels have been related to estimated glomerular filtration-rate (eGFR) imbalance. Beneficial effect of treatment with xanthine oxidase inhibitors (XOI), mostly allopurinol, has already been proved in patients with CKD and asymptomatic hyperuricemia. Although several studies have described the efficacy and renal safety of treatment with XOI in gout, few authors have analyzed its effect on GFR in gouty patients with moderate CKD.
Objectives: To assess the effect of XOI therapy in gouty patients with moderate CKD, in terms of eGFR changes.
Methods: In this multicenter, retrospective study, we included patients from 4 centers diagnosed with gout (EULAR/ACR criteria) and stage-3 CKD according to Cockroft-Gault formula (eGFR 30-59 ml/min/m^2) who received XOI (febuxostat and allopurinol) with a follow-up for 6 and 12 months. We used clinical records to collect patient features (age, sex, body mass index, sUA, hypertension (HTA), diabetes mellitus (DM), dyslipidemia (DL), cardiovascular events), treatments (lipid-lowering drugs, antihypertensives, antidiabetics, antiplatelet therapy, NSAIDs, urate lowering treatments and colchicine) and gout history (duration of disease, tophi presence, clinical and ultrasonographic (US) pattern (monoarticular, oligoarticular, polyarticular).
Statistical analysis: descriptive analysis of variables. Mixed effects model lineal regression Differences were considered significant $p<0.05$.
Results: 52 patients with gout and stage-3 CKD were identified. We obtained complete 6 and 12-months follow-up from 37 patients (33 males and 4 females). Mean age was 74.11±6.96 years, 32.4% DM, 83.78% HTA, 56% DL, 40% tophaceous gout, Clinical and US pattern (37.8% polyarticular, 37.8 oligoarticular and 24.3% monoarticular). Febuxostat 19 patients, Allopurinol 18. Mean baseline sUA was 8.63±1.33 mg/dl, and baseline eGFR was 47.77±8.45 ml/min/m^2. To assess the effects of considered variables over eGFR a linear mixed model was adjusted using *nlme R-package*. Within the adjusted model we obtained significant differences in eGFR between baseline and 6 months (p=0.0081), and between baseline and 12-months (p=0.0028). sUA decreased significantly between baseline and 6 (p=0.0181) and 12 months (p=0.0188).
Conclusion: Reduction of sUA levels in gouty patients with XOI entitles an improvement of eGFR in stage-3 CKD. These findings suggest that the response to urate lowering therapy take place in the first 6 months, leading to an improvement in eGFR in this period. From 6 months to 1 year, sUA levels are stabilized and so is eGFR.

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SAT0440 DOES MONOSODIUM URATE DEPOSITION IN GOUT PATIENTS ALTER THE BIOCHEMICAL PROPERTIES OF MENISCAL FIBROCARTILAGE AND HYALINE CARTILAGE? A DUAL-ENERGY COMPUTED TOMOGRAPHY STUDY

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Background: Dual-energy computed tomography (DECT) is increasingly used in gout to assess monosodium urate (MSU) crystal deposition in soft tissues. In contrast to ultrasound (US) with its typical double-contour (DC) sign, DECT seems unable to identify MSU deposition deep within joints, where flares occur. DECT has recently shown its potential for discriminating between the various crystal types owing to their biochemical signature.
Objectives: We aimed to assess whether DECT attenuation properties differed between knees of gout patients with and without deep articular MSU deposition characterized by the DC sign on US; more specifically if MSU deposition altered the electron density (ρe) of various knee structures.
Methods: Consecutive patients with gout were included in this cross-sectional study and their knee MSU burden was assessed using combined DECT and US. Knees were assigned to either DC+ or DC- groups depending on the presence/absence of the DC sign on US. Regions of interest (ROI) were drawn in the following knee zones on a specific coronal DECT image: hyaline cartilage of the patellofemoral and medial and lateral tibiofemoral joint spaces, as well as medial and lateral menisci. Regions of interest that exhibited chondrocalcinosis were excluded. Five DECT parameters were obtained: CT numbers (HU) at 80 and 140 kV, dual-energy index (DEI), electron density (ρe), and effective atomic number (Zeff). Knee zones were compared between groups using mixed linear models.
Results: A total of 115 patients were included. Gout duration was 9.8 ±9.0 years, mean serum urate was 7.3±2.3 mg/dL and 48 (41.7%) patients were under urate lowering therapy. Out of a total 230 knees, 46 (20%) were assigned to the DC+ group. Menisci from DC+ and DC- patients had a mean (± standard deviation) Zeff of 7.5±0.2 and 7.6±0.2 (p=0.49), mean ρe of 77±14 and 73±13 (p=0.15) and mean DEI of -0.0003±0.0036 and 0.0001±0.0042 (p=1), respectively. Hyaline cartilage from DC+ and DC- patients had a mean Zeff of 7.6±0.2 and 7.7±0.2 (p=0.49), mean ρe of 65±21 and 60±18 (p=0.17) and mean DEI of 0.0020±0.0049 and 0.0025±0.0043 (p=1), respectively. No differences were noted between groups in the patellofemoral joint space.
Conclusion: There is an expected increased electron density (ρe) in meniscal fibrocartilage and hyaline cartilage of gout patients with MSU deposition, even though DECT measures do not reach statistical significance. Particular attention will be given to patients with high MSU burden (large DC signs on US).
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SAT0441 SKIN ADVERSE EVENTS WITH FEBUXOSTAT IN GOUT PATIENTSWITH PREVIOUS SKIN REACTIONS TO ALLOPURINOL. A MULTICENTRE DESCRIPTIVE STUDY

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Background: Allopurinol is first-line urate-lowering drug (ULD) for patients with gout. However, around 10% of them refer adverse events, often at skin, which can be severe. Febuxostat is a non-purine selective xanthine oxidase inhibitor, often a therapeutic alternative in this setting, though data regarding safety in those patients with previous cutaneous adverse reactions (CAR) to allopurinol is still limited. Some cases and small