Conclusion: Gout patients with/without two years adherence of urate-lowering agents does not have an impact on ESRD and all-cause mortality.

References: Nil

Disclosure of Interests: : None declared

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THU0425

ULTRASOUND DETECTED URATE CRYSTALS DEPOSITIONS ARE ASSOCIATED WITH ELEVATED CALPROTECTIN AND CRP INDICATING SUBCLINICAL INFLAMMATION; BASELINE RESULTS FROM THE NOR-GOUT STUDY

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Background: Ultrasound detects depositions of monosodium urate (MSU) crystals in gout patients. The OMERACT ultrasound group has developed definitions for elementary lesions in gout including the double contour (DC) sign (depositions of crystals on the surface of cartilage) and tophus (larger hypo-echoic aggregation of crystals, usually well delineated). Calprotectin is a major granulocyte protein found to be sensitive to reflect the level of inflammation in several immunological diseases. There may be an association between low grade inflammation and co-morbidity (including cardio-vascular pathology) in gout patients.

Objectives: To explore whether the extent of depositions (e.g. DC and tophi) was associated with inflammation in gout patients.

Methods: The baseline data from NOR-GOUT, a prospective observational study of patients with crystal-proven gout with increased serum urate levels (>360 µmol/L), were presently used. All patients had an extensive ultrasound examination (GE E9 machine, grey scale 15MHz) to assess MSU depositions (DC and tophi) with bilateral assessment of radiocarpal joint, MCP 2, insertion of triceps and quadriceps, proximal and distal patellar and the Achilles tendon, cartilage of distal femur (maximal flexed knee), the talar cartilage of tibiotalar joint and MTP 1 joint. The degree of elementary lesions was semi-quantitatively scored 0-3 (0=none, 1=possible, 2=certain, 3=major depositions). Total sum scores of DC and tophi were calculated and the associations with calprotectin (plasma assessed by ELISA (Calpro), normal levels <910 µg/L) as well as C-reactive protein (CRP, assessed as a routine at our laboratory, normal levels <4mg/L) were explored. Correlations were performed by use of Spearman and differences between groups were investigated by Mann-Whitney tests.

Results: A total of 111 patients who had calprotectin assessed were included in the study (92% men, mean (SD) age 54.5 (14.5) years, disease duration 7.1 (6.6) years) when initiating MSU lowering treatment. The mean (SD) sum score DC and tophi was 9.1 (7.8), calprotectin 780 (500) µg/L, CRP 7 (15) mg/L, serum urate (SUA) 505 (87) µmol/L, creatinine 96 (18) µmol/L and eGFR 79 (20) ml/min/1.73m². Table 1 shows significant correlations between sum score DC/tophi and calprotectin, CRP, SUA, creatinine and eGFR. Increased calprotectin levels (≥910 µg/L) were found in 28% and increased CRP (≥ 4mg/L) in 39%. Patients with increased vs normal levels of calprotectin had significantly higher levels of DC/tophi depositions (mean (SD) 13.0 (10.4) vs 7.4 (5.8), p=0.01), and similar was found for CRP (11.4 (9.5) vs 7.6 (6.2), p=0.033) (illustrated in table 2).

Conclusion: In gout patients, higher load of MSU depositions was associated with increased inflammatory markers. This indicates that the amount of depositions is associated with higher inflammatory activity, which could have systemic implications.

	Sum score DC and tophi	Calprotectin	CRP	SUA	Creatinine
Calprotectin	0.31*				
CRP	0.29*	0.65**			
SUA	0.31**	0.22*	0.19		
Creatinine	0.34**	0.25*	0.15	0.36**	
eGFR	-0.38**	-0.27*	-0.21*	-0.18	-0.86**

*p<0.05, **p<0.001

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THU0426

CLINICAL CHARACTERISTIC OF INFECTIOUS ULCERATION OVER TOPHI

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Background: Infection in ulceration over tophi is the leading cause of sepsis in patients with gout, which is the main indication for surgery. Additionally,