SAT0412

DOES THERAPEUTIC EDUCATION IMPROVE GOUT MANAGEMENT: THE EXPERIENCE OF LARIBOISIERE UNIVERSITY HOSPITAL PARIS-FRANCE

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Background: Gout is a frequent and curable arthritis affecting 0.9% of adults in France. Its management remains suboptimal and less than one third of patients have efficient urate-lowering treatment (ULT). However, when individualized information were given and patients engaged in their care a treat-to-target strategy permits to achieve serum urate level (SU) at target (SU < 360 µmol/L) in more than 95% of patients. Therapeutic education sessions (TES) may improve patient knowledges, gout flare and ULT management.

Objectives: To assess the percentage of patients achieving SU target at 1 year after a TES.

Methods: TES was set up in the department since January 2014. Patients willing to participate to TES responded to a questionnaire and were interviewed with a nurse assessing their knowledges, believes and gout representations. Each TES included 5 to 8 patients and was conducted according to participants' needs. We retrospectively included all patients who had attended one TES between 1st January 2014 and 31st December 2017 and who had at least one visit between 9 and 15 months later.

TES patients were matched in 1:1 with no-TES patients regarding age, sex and referent practitioner.

For all patients were collected: demographics, disease duration, SU, treatments and comorbidities (type 2 diabetes, chronic kidney disease, hypertension, and cardiovascular diseases).

Results: Overall, 54 TES patients were included and matched with 54 non-TES patients. Patients' characteristics (demographics, disease duration, SU, treatments and comorbidities) were similar at baseline except for the body mass index (BMI) and the follow-up. BMI was higher (31.0 ± 5.7 vs 28.4 ± 5.0 kg/m², p=0.03) and the final visit shorter (11 ± 3.6 vs 14.4 ± 4.8 months, p=0.001) in no-TES patients than in TES patients, respectively.

At final visit, 36 TES patients (67%) and 34 no-TES patients (63%) reached the SU target (< 360 µmol/L) (p=0.84) (Table 1). Moreover, 22 (41%) TES patients and 18 (33%) no-TES patients had a final SU < 300 µmol/L (p=0.43). There were no differences between groups (TES vs no-TES patients respectively) for: final SU (342 µmol/L ± 94 vs 338 ±

71, p=0.84), ULT (89% vs 96%, p=0.16), ULT dosage and hyperuricemic therapy (15% vs 11%, p=0.77).

Conclusion: The percentage of patients achieving SU target after one single TES was high compare to literature data. However, it was not different from usual care achieved in our department, a tertiary care center expert in gout management. The diffusion of our *savoir-faire* and the TES will improve gout management.

REFERENCE

- [1] Doherty M, Jenkins W, Richardson H, Sarmanova A, Abhishek A, Ashton D, et al. Efficacy and cost-effectiveness of nurse-led care involving education and engagement of patients and a treat-to-target urate-lowering strategy versus usual care for gout: a randomised controlled trial. *The Lancet*. 2018;392(10156):1403–1412.

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SAT0413

SIZE MATTERS – EXTENT OF MONOSODIUM URATE DEPOSITS BUT NOT SERUM URATE LEVEL PREDICTS COMPLETE RESOLUTION OF MONOSODIUM URATE CRYSTAL DEPOSITS IN PATIENTS WITH GOUT

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Background: Gout is based on the deposition of monosodium urate (MSU) crystals. While it is well established that life-style intervention and/or conventional urate lowering therapy can lead to a decrease in serum urate levels, the impact of such interventions to resolve already existing MSU deposits is very limited.

Objectives: In this study we wanted to determine if and to what extent MSU deposits resolve if patients follow structured life-style intervention or continuously conventional urate lowering therapy.

Methods: Subjects with diagnosis of gout and the presence of MSU deposits in the feet in baseline dual energy CT (DECT) scan, received either life-style intervention only (N=24) or additional conventional urate lowering therapy (allopurinol: N=29, febuxostat: N=22, benzbromarone N=2) for a mean period of 18 months before receiving a follow-up DECT examination. MSU deposits were quantified by volumetric measurement and semi quantitative scoring at baseline and follow up.

Results: Serum uric acid (SUA) level decreased from 7.2±1.7 to 6.7 ±1.7mg/dl with life-style intervention; from 7.0±1.5 to 5.5±1.8mg/dl with allopurinol and from 7.8±3.0 to 5.1 ± 2.5mg/dl with febuxostat. MSU volume significantly decreased in patients undergoing life-style intervention (baseline: 0.07cm³ ± 0.09; follow up: 0.05 ± 0.15cm³; p=0.007), treatment with allopurinol (0.11 ± 0.15 cm³ to follow up: 0.02 ± 0.04 cm³, p<0.001) or febuxostat (MSU volume baseline: 0.99 ± 2.8 to follow up: 0.64 ± 2.09; p=0.001). With respect to conversion from a DECT+ into a DECT- state, baseline MSU deposit burden, but not baseline SUA level or decrease in SUA level, was associated with reaching a DECT- state.

Table 1. Patient's characteristics for gout at the end of the follow-up

	Baseline		End of follow-up		p value
	TES	No-TES	TES	No-TES	
Patient with serum urate < 360 µmol/L, n (%)	0 (0%)	0 (0%)	36 (67%)	34 (63%)	0,84
Patient with serum urate < 300 µmol/L, n (%)	0 (0%)	0 (0%)	22 (41%)	18 (33%)	0,43
Serum urate concentration (µmol/L), mean (SD)	533 (105)	528 (97)	342 (94)	338 (71)	0,84
Taking ULT	21 (39%)	19 (35%)	48 (89%)	48 (96%)	0,16
Allopurinol, n (%)	16 (30%)	12 (22%)	22 (41%)	22 (44%)	0,89
Febuxostat, n (%)	5 (9%)	7 (13%)	26 (48%)	26 (52%)	0,84
ULT dose					
Allopurinol (mg/day), mean (SD)	196 (169)	183 (41)	284 (102)	241 (76)	0,22
Febuxostat (mg/day), mean (SD)	100 (30)	86 (10)	92 (26)	83 (13)	0,32
Taking hyperuricemia therapy, n (%)	13 (24%)	16 (30%)	8 (15%)	6 (11%)	0,77
Aspirine, n (%)	6 (11%)	8 (15%)	2 (4%)	2 (4%)	1
Thiazide diuretics, n (%)	5 (9%)	7 (13%)	6 (11%)	3 (6%)	0,49
Furosemide, n (%)	6 (11%)	7 (13%)	2 (4%)	2 (4%)	1

ULT = urate-lowering therapy