FRI0227

RISK FACTORS FOR SKIN REACTIONS TO ALLOPURINOL IN THE KINH POPULATION OF VIETNAM

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Background: Allopurinol (ALLO) exposes to mild (M) and severe (S) cutaneous adverse reactions (CARs). SCARs have been associated with HLA*B58 01 with various strength of across ethnicities. Little is known about ALLO tolerance in Vietnam (VN).

Objectives: The aim of this ongoing prospective study was to investigate risk factors, including HLA*B-58 01, for MCARs and SCARs in the predominant Kinh ethnicity of VN

Methods: All included patients were Kinh Vietnamese. SCARs were recruited at Ho Chi Minh City hospitals, MCARs from the same departments and from the Vien Gut clinic at HCMC (specialised in gout care), and tolerant gouty patients (no skin reaction after at least 3 months from the last increment in ALLO dose) at the Vien Gut clinic. Clinical data were prospectively collected and HLA*B-58 01 typing used the PG5801 DNA detection kit (Pharmigene-Taiwan). Fisher exact test for categorical variables and Kruskal-Wilkinson test for quantitative variables were used for statistics.

Results: 10 patients experienced a non-fatal SCAR. Toxic necrotic epidermolysis, Stevens-Johnson syndrome and mixed syndrome were diagnosed in 1, 8 and 1 patients respectively. 54 patients stopped ALLO because of MCAR. 112 ALLO tolerant patients were recruited. Table 1 shows the main features of interest in the 3 groups. The Odds ratio of HLA*B-58 01 positive patients to develop SCARs was calculated at 171.2 (95% CI: 20; 7889)

Abstract FRI0227 – Table 1. Features associated with MCARs and SCARs

	SCARs (n=10)	MCARs (n=54)	Tolerant (n=112)	P value Global test	P value SCARs vs tolerant	P value MCARs vs tolerant
No Gout n (%)	5 (50%)	53 (98%)	112 (100%)	p<0,0001	p<0,0001	p=0,33
Females n (%)	2 (20%)	0	0	p=0003	p=0006	p=1
Age	55	47	46	p=0012	p=0,04	p=0,73
Mean (CI)	(CI :12)	(CI :12)	(CI :12)			
History of MCAR to ALLO	1/7 (14%)	1/52 (2%)	0	p<0,0001	p=0006	p=0,32
Diuretic intake	2/9 (22%)	1/52 (2%)	0	p=0002	p=0.005	p=0,32
n/known (%)						
ALLO dose/d	345 mg/j	259 mg/j	356 mg/j	p<0,0001	p<0,0001	p=0.51
Mean (CI)	(CI :142)	(CI :119)	(CI :114)			
ALLO titration n (%)	0	49 (91%)	112 (100%)	p<0,0001	p<0,0001	p<0,0001
GFR<60 ml/ min	2/6 (33%)	1/51 (0.2%)	1/88 (0.01%)	p=0008	p=0,01	p=1
n/known (%)						
HLA-B*5801	10 (100%)	3 (5,6%)	6 (5,3%)	p<0,0001	p<0,0001	p=1

Conclusions: HLA*B-58 01 was significantly associated with SCARs to ALLO in the VN Kinh population. Other known factors but not high ALLO dose were also associated. The only association with MCARs was lack of ALLO titration.

Acknowledgements: ART Viggo

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.6104

FRI0228

URATE CORRELATES TO CORONARY ARTERY CALCIFICATION BUT NOT TO INTIMA MEDIA THICKNESS

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Background: Hyperuricemia is closely associated to cardiovascular disease (CVD) although it has not been definitively established whether it is a marker or a causative agent. Serum urate (SU) is strongly linked to the metabolic syndrome, hypertension, hyperlipidemia, kidney failure and higher BMI and higher levels are seen in men compared to women. Coronary artery calcification (CAC) is associated with future risk of atherosclerotic CV events in addition to the traditional cardiovascular risk factors (CVRF). CACs are present in atherosclerotic arteries and can be quantified and scored non-invasively by computed tomography. Carotid intima media thickness (CIMT) is a method of estimating atherosclerosis by assessing the level of arterial thickening present. CIMT can be used as a noninvasive marker of atherosclerotic disease with increasing CIMT linked to an increased risk of subsequent CV events. In the present study we have examined the relation between CACs, CIMT and SU in 1040 male and female with no history of myocardial infarction or stroke.

Objectives: To examine the association between SU and CAC and CIMT respectively in men and women separately.

Methods: We identified 1106 (552 males) individuals who were screened for traditional CVRFs, such as hypertension (HT), dyslipidemia (DL), diabetes mellitus (DM), smoking, physical activity (PA), educational level (EDU), socioeconomic status (SES), BMI, high sensitive CRP (hsCRP), kidney function by eGFR (eGFR). CACs, reflecting calcification of coronary arteries, was determined according to Agatston¹. CIMT was calculated as the mean of CIMT of the left and right coronary artery. We measured SU and related quartiles of it to CACs and CIMT with multiple logistic regression analyses adjusting for traditional CVRFs. CAC was defined positive if ≥ 1 . CIMT was defined positive for ≥ 75 percentile. All study participants with a history of CVD (n=68, 44 male) were excluded.

Results: Of the 1106 participants, 68 were excluded due to history of CVD rendering a study population of 1040 individuals (508 males) with a mean age of 57.7 and 57.5 for male and female respectively. Age, BMI, EDU, SES, smoking status, PA, hsCRP, HT and DL showed no differences between sex while presence of CAC and diabetes was twice as common in men (table 1) and 65% of men displayed an eGFR below 90 mL/min compared to 12% of women (table 1a b). The three upper quartiles of SU (>306 $\mu\text{mol/L}$) all significantly ($p<0.05$) predicted presence of CACs in male when adjusting for HT, DL, DM, smoking, PA, EDU, SES, BMI, hsCRP, eGFR and age in multivariate logistic regression, but not in women (table 2). CIMT showed no correlation to SU in men nor women.

Abstract FRI0228 – Table 1. Prevalence of gout I WSHCR by 2012–12–31, age above 20 years in total and by age and sex

Variables	Male, n=508	Female, n=532
Age, years, mean, (SD)	57.7(4.4)	57.5(4.3)
BMI, mean, (SD)	27.7(4.1)	26.8(4.9)
hsCRP, (mean, SD)	2.2(3.4)	2.4(3.8)
CAC positive, (%)	293(58%)	137(26%)
eGFR >90 ml/min	180(35%)	467(88%)
eGFR 60-90 ml/min	316(62%)	60(11%)
eGFR <60 ml/min	12(2%)	5(1%)
Smoking status, never	215(42%)	237(45%)
Smoking status, previous	206(41%)	191(36%)
Smoking status, active	86(17%)	102(19%)
Hypertension (%)	160(32%)	178(33%)
Diabetes mellitus (%)	39(8%)	21(4%)
Dyslipidemia (%)	144(28%)	121(23%)