AB0631

THE PREVALENCE AND FACTORS ASSOCIATED WITH CORONARY HEART DISEASE IN PATIENTS WITH GOUT

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Background: Gout is associated with increased risk of cardiovascular disease (CVD) morbidity and mortality. Therefore, an association between coronary heart disease (CHD) and gout deserves careful examination.

Objectives: The aim of this study was to determine the prevalence of CHD and factors associated with CHD in patients (pts) with gout.

Methods: 286 male patients fulfilling Wallace proposed criteria for gout were included: age 51.2 [42.8;59.4] years (ys), disease duration – 6.2 [3.8;12.1] ys. All patients underwent standard clinical examination, screening traditional risk factors (TRF) of CVD, blood chemistry test with estimation of serum uric acid, serum creatinine, C-reactive protein (CRP), as well as lipid profile. Carotid intima-media thickness (cIMT) was measured using a high-resolution B-mode ultrasound machine. CHD included history of angina pectoris and/or myocardial infarction. We estimated the adjusted odds ratio (OR) and 95% confidence interval (95% CI).

Results: CHD was found in 111 out of the 286 pts (38.8%). Compared to individuals with CHD, participants without CHD were older (56.7[52.1; 61.1] vs 46.2[40.6; 53.4] ys), had longer duration of gout (9.3[4.7; 15.1] vs 5.6[3.3; 9.7] ys), higher number of joints involved during disease course (8[6; 15] vs 6[4; 10]), duration of smoking (24[10; 40] vs 20[10; 28]), higher serum creatinine level accordingly, (for all $p < 0.05$). The frequency of family history of CHD (63% vs 46.8%), intraosseous tophi (61.3% vs 33.1%), was higher in pts with CHD compared pts without CHD accordingly, (for all $p < 0.01$). Prevalence of arterial hypertension, diabetes mellitus, nephrolithiasis, heart failure and renal failure was greater in pts with CHD than pts without CHD ($p < 0.001$). Gout pts with CHD had a significantly higher cIMT compare to those without CHD - 0.95[0.8;1.08]/0.8[0.7;0.9] accordingly, $p < 0.001$. We didn't find differences of lipid profile, serum uric acid, and CRP level in gout pts with/without CHD.

Abdominal obesity (OR, 5.5; 95% CI, 2.2-13.6), body mass index $> 30 \text{ kg/m}^2$ (OR, 5.8; 95% CI, 1.8-18.5), family history of CHD (OR, 2.7; 95% CI, 1.3-5.4), disease duration of gout more 10 ys (OR, 2.6; 95% CI, 1.3-5.1), age of gout onset < 35 ys (OR, 3.0; 95% CI, 1.5-6.1), intraosseous tophi (OR, 3.1; 95% CI, 1.4-7.0), C-RP (OR, 2.2; 95% CI, 1.1-4.7), renal failure (OR, 18.8; 95% CI, 1.1-312.9), increased the risk for CHD in patients with a gout.

Conclusion: The prevalence of CHD was 38.8% among individuals with gout. Our study showed that both TRFs of CVD and the severity of gout and a history of renal failure contribute to the development of CHD in patients with gout.

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AB0632

COMORBIDITIES AND DRUG-INDUCED LIVER INJURY DUE TO NSAIDS INTAKE IN PATIENTS WITH GOUT

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Background: One of the side effects of NSAIDs is hepatotoxicity or Drug-Induced Liver Injury (DILI). Despite the short course of NSAIDs, the patients with gout may develop DILI. At the same time, besides NSAIDs, there are additional factors that affect the functional state of the liver: demography, comorbidities or concomitant medication (1).

Objectives: To determine comorbidities associated with the risk of DILI when taking NSAIDs during the attack of gouty arthritis.

Methods: Our retrospective study included 200 patients with GA. Inclusion criteria for the study: presence of gout (ACR, 1977), initially normal serum ALT level, NSAIDs as anti-inflammatory drugs in gout. Exclusion criteria: presence of a known liver disease. All patients were divided into 2 groups: those who

developed DILI ($n = 86$) and the control group without cytolysis during NSAID treatment ($n = 114$). The severity of the cytolytic syndrome was revealed as follows: mild form (2-3-fold excess of the ALT norm) in 81.4 % ($n = 70$); moderate (3-5 times higher ALT) in 15.1% ($n = 13$); severe (5-10 fold excess of ALT) in 3.4% ($n = 3$). The mean age of 55 (49-60) years and 54 (44-59.5) years as well as the sex distribution (men made 90.1% and 93.3%, respectively) were compatible in both groups ($p > 0.05$). When studying the age distribution, statistical differences were revealed in the groups under 52 years ($p > 0.05$), so, this parameter was included into logistic regression model. During the follow-up period, all patients took NSAIDs above average doses. Patients in both groups were comparable in duration of gout. The following parameters were compared: AH, IHD, diabetes mellitus, obesity, dyslipidemia, metabolic syndrome according to ATPIII, CKD, alcohol abuse, age under 52.

Results: After conducting logistic regression analysis, the next comorbidities have been revealed to be statistically significant: obesity (OR – 2.15; 95%CI 1,16-3,98), dyslipidemia (OR – 3,41; 95% CI 1,56-7,44) and alcohol abuse (OR – 2,45; 95%CI 1,22-4,91). Worth to note that age under 52 was also a risk factor for DILI (OR – 2,14; 95%CI 1,13-4,04). Thus, among our patients, the younger ones with an unhealthy lifestyle and no serious comorbidities, including cardiovascular, were at a greater risk for developing DILI while taking NSAIDs during the gout attack.

Conclusion: In the study group of patients with gout, the hepatotoxicity (cytolysis syndrome) risk due to NSAIDs intake increased in younger patients in the presence of signs of metabolic syndrome (obesity, dyslipidemia) and alcohol abuse.

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AB0633

HEALTH RELATED QUALITY OF LIFE IN GOUT, PSORIATIC ARTHRITIS, RHEUMATOID ARTHRITIS AND ANKYLOSING SPONDYLITIS: RESULTS FROM A QUESTIONNAIRE STUDY

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Background: Gout, psoriatic arthritis (PsA), rheumatoid arthritis (RA), ankylosing spondylitis (AS), are common inflammatory joint diseases (IJD) that substantially affect HRQoL (Health Related Quality of Life). To our knowledge, this is the first study comparing HRQoL in gout, PsA, RA and AS in the same setting.

Objectives: To compare HRQoL assessed with the Short Form health survey (SF-36) between gout, PsA, RA and AS.

Methods: We performed a cross-sectional questionnaire study in Sweden. Individuals ≥ 18 years and with at least one ICD-10 diagnosis for gout, PsA, RA, or AS, recorded at a health care visit to a physician at a rheumatology clinic (for all diagnoses) or at a primary care center (for gout patients) from 2015 through 2017 were identified. Patients with gout ($n=1589$), PsA ($n=1200$), RA ($n=1246$) and AS ($n=1095$) were sent a questionnaire including questions regarding Visual Analogue Scales (VAS) for General Health, Pain, Fatigue, Health Assessment Questionnaire (HAQ), as well as the SF-36. The eight domains (a higher score indicating a better health status) as well as the overall physical (PCS) and mental (MCS) component scores (a value of 50 corresponds to unaffected HRQoL) of the SF-36 are presented. Respondents were matched on age, sex. ANOVA was used for between group comparisons of mean values. For non-normally distributed data, Kruskal Wallis test was used. For comparing distributions, the Chi-Square test was used.

Results: In total, 2896 (56.5%) individuals responded. After matching for age, sex, 249 individuals per diagnosis group remained. Gout patients reported significantly higher scores on SF-36 subscales as well as PCS (consistent with results seen before matching for age and sex). Lower values of HRQoL were noted in physical domains as compared to mental domains in all IJDs. Disability measured by HAQ was significantly lower in gout and VAS scores were more favourable compared to other IJDs.

Conclusion: Patients with gout report higher HRQoL compared to PsA, RA, AS.

Table 1. Age-matched comparisons across diagnoses

	Gout	PsA	RA	AS	p-value	p-value	p-value	p-value	p-value	p-value
	Gout	Gout	Gout vs PsA	vs PsA	vs RA	vs RA	vs AS	vs AS	vs AS	vs AS
Total (n)	249	249	249	249	N/A					
Age, mean (SD)	62.5 (11.2)	64.2 (10.2)	63.1 (11.6)	62.8 (10.5)	NS					
Education ≤12 years, n (%)	132 (53.0)	148 (59.4)	160 (64.3)	139 (55.8)	NS					
HAQ, mean (SD)	0.19 (0.40)	0.48 (0.55)	0.60 (0.63)	0.58 (0.58)	***	***	***	NS	NS	NS
VAS General Health, mean (SD)	2.6 (2.3)	3.7 (2.4)	3.8 (2.6)	4.0 (2.3)	***	***	***	NS	NS	NS
VAS Pain, mean (SD)	2.6 (2.4)	4.0 (2.6)	3.8 (2.6)	4.2 (2.4)	***	***	***	NS	NS	NS
VAS Fatigue, mean (SD)	3.6 (2.6)	4.5 (2.7)	4.3 (2.6)	4.9 (2.5)	***	***	*	NS	NS	*
SF-36 domains, median (IQR)										
Physical function	90.0 (75.0-95.0)	70.0 (51.3-95.0)	70.0 (45.0-90.0)	75.0 (50.0-90.0)	***	***	***	NS	NS	NS
Role physical	100.0 (33.3-100.0)	50.0 (0.0-100.0)	50.0 (0.0-100.0)	50.0 (0.0-100.0)	***	***	***	NS	NS	NS
Bodily pain	72.0 (42.0-100.0)	52.0 (41.0-74.0)	52.0 (41.0-74.0)	52.0 (41.0-64.0)	***	***	***	NS	NS	NS
General Health	67.0 (47.8-80.8)	56.0 (35.0-72.0)	55.0 (37.0-71.0)	50.0 (35.0-71.0)	***	***	***	NS	NS	NS
Vitality	65.0 (50.0-77.5)	57.5 (37.5-75.0)	50.0 (42.5-70.0)	50.0 (32.5-70.0)	***	*	*	NS	NS	NS
Social function	100.0 (68.8-100.0)	81.3 (57.8-100.0)	81.3 (57.2-100.0)	81.3 (50.0-100.0)	***	**	**	NS	NS	NS
Role emotional	100.0 (66.7-100.0)	100.0 (33.3-100.0)	100.0 (33.3-100.0)	100.0 (33.3-100.0)	**	NS	**	NS	NS	NS
Mental health	82.0 (66.0-92.0)	78.0 (60.0-92.0)	73.0 (60.0-88.0)	73.0 (60.0-88.0)	**	NS	*	NS	NS	NS
SF-36 summary scores, median (IQR)										
Physical component score	48.4 (38.8-54.7)	40.2 (28.5-50.2)	40.2 (28.2-49.0)	38.7 (30.1-48.2)	***	***	***	NS	NS	NS
Mental component score	51.7 (43.7-56.5)	51.0 (39.2-56.4)	50.7 (39.6-56.3)	47.7 (37.1-55.3)	*	NS	NS	NS	NS	NS

HAQ=Health Assessment questionnaire; IQR=Interquartile range; SD=Standard deviation; VAS=Visual Analogue Scale; NS=non-significant; * = significant at $p < 0.05$; ** = significant at $p < 0.01$; *** = significant at $p < 0.001$

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AB0634

BELIEFS ABOUT URATE LOWERING THERAPY DIFFER BETWEEN GENERAL PRACTITIONERS AND RHEUMATOLOGISTS

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Background: Uric acid lowering therapy (ULT) can be effective in gout if taken correctly (1), but non-adherence is a known problem (2). Although patients' adherence barriers regarding ULT, such as lack of knowledge on disease and therapy, and beliefs, have been widely studied (3), less is known physicians' beliefs.

Objectives: To investigate the physicians' beliefs on ULT treatment in both primary and secondary care in the Netherlands.

Methods: Cross-sectional study among all rheumatologists of the Sint Maartenskliniek and to all General Practitioners (GPs) of 17 practices, participating in the practice-based research network Family Medicine Network Nijmegen,

Netherlands. All participants filled out the beliefs about medication questionnaire (BMQ), adjusted for physicians; in addition data were collected on physician characteristics including working experience in total and gout consultations. The BMQ consists of two parts, a specific part with 10 questions about beliefs on necessity (N=5) and concerns (N=5) regarding ULT and a general part with 8 questions about beliefs on harms (N=4) and overuse (N=4) regarding medication in general. Each question is scored on a Likert-scale from 1-5, a higher score corresponds to higher beliefs on that category. Sum scores for all four categories were calculated. With the total scores on the specific BMQ including necessity and concerns beliefs, physicians were classified in four different categories (Table 1)(4).

Results: In total 112 physicians received the questionnaire, 28 of 37 rheumatologists (76%) and 45 of 75 GPs (60%) responded. Rheumatologists had less years of experience than GPs (median 8.5 years (IQR 3 – 14) versus (vs) 13 years (IQR 8-20)) and less hours of patient contact per week (15 hours (IQR 8.5 – 20) vs 24 hours (IQR 20 – 30)). Rheumatologists reported more consultations for gout per week than GPs: median 4 (IQR 1 – 6.6) vs 1 (IQR 0.2 – 1).

Rheumatologists scored higher on the BMQ necessity scale, 17.5 (95% CI 16.6 – 18.5) compared to GPs 16.1 (95% CI 15.1 – 17.1). GPs scored higher on BMQ concern scale, 12.1 (95% CI 11.4 – 12.7) compared to rheumatologists, 10.4 (95% CI 9.7 – 11.2). On medication in general, GPs scored higher on both overuse and harms scales compared to rheumatologists, 11.3 (95% CI 10.7 – 12) versus 9.9 (95% CI 9 – 10.7) and 8.3 (95% CI 7.9 – 8.7) vs 7.1 (95% CI 6.5 – 7.7), respectively. Table 1 shows classification according to the BMQ specific for both groups.

Table 1. Classification based on the adapted BMQ

	Rheumatologists (N=28)	GPs (N=45)
Acceptant (%)	19 (67.9)	16 (35.6)
Ambivalent (%)	0	8 (17.8)
Sceptic (%)	1 (3.6)	5 (11.1)
Indifferent (%)	8 (28.6)	16 (35.6)

Conclusion: For the majority of rheumatologist the necessity beliefs outweighs concern beliefs towards the use of ULT outweighs concern beliefs. GPs show a more heterogenic profile, including acceptant, indifferent and ambivalent beliefs towards ULT use. GPs also show higher harm and overuse concerns regarding medication in general. Next step is to investigate possible associations with actual ULT use and disease outcome.

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AB0635

EVALUATION OF THE INTIMA-MEDIA THICKNESS INDEX BY CAROTID DOPPLER IN PATIENTS WITH MONOSODIUM URATE DEPOSITION ARTHRITIS OF THE HOSPITAL DOCENTE PADRE BILLINI, DOMINICAN REPUBLIC

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Background: Hyperuricemia and gout are risk factors for atherosclerosis subclinical and cardiovascular complications. (1) However, it is still debated whether uric acid is an independent predictor of cardiovascular risk. (2) Vascular Doppler and in particular the measurement of the intima-media thickness and the detection of plaques are useful in the evaluation of cerebrovascular disease and cardiovascular risk. (3) An intima-media thickness greater than 0.9mm and / or the presence of atheromatous plaques in the carotid are predictive of high cardiovascular risk and silent heart disease. (4) Gouty arthritis has been associated with alteration of the carotid intima media thickness (cIMT) and subclinical atherosclerosis. Cukurova et al studied patients with gout, finding an increase in cIMT compared to patients with asymptomatic hyperuricemia. (5)

Objectives: Assess the carotid intima-media thickness in patients with monosodium urate deposits arthritis