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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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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.