

Objectives: To define the prevalence of PHP in patients with RA.

Methods: All RA patients who were registered in the local part of Danish Danbio registry were included in this study. Patients' demographic data and serology results (rheumatoid factor (RF) and anti-cyclic citrullinated peptide antibody (anti-ccp)) were extracted from Danbio. Patients' electronic hospital records including laboratory results (Parathyroid hormone (PTH) and calcium levels) were reviewed to reveal if they had been diagnosed with PHP as well.

Results: 1035 RA patients were included in this study [table 1]. Prevalence of PHP was 2.8% (29/1035). RA Patients with PHP had significant longer disease duration compared to patients with isolated RA ($p=0.003$). There was no significant difference between RA patients with and without PHP with respect to age, gender, RF and anti-ccp positivity (Table 1).

Table 1. Association of PHP with age, gender, disease duration, Rheumatoid Factor and Anti-ccp in RA patients

Variables:	RA patients with PHP N=29	RA patients without PHP N=1006	P value
Age	69.9±10.6	67.0±14.6	0.170
Gender, Female	23 (79.3%)	633 (62.9%)	0.107
Disease Duration	15.2±9.5	9.4±9.6	0.003
Rheumatoid Factor, Positive	20 (69%)	587 (58.3%)	0.393
Anti-ccp, Positive	19 (65.6%)	513 (51%)	0.241

RA: Rheumatoid Arthritis, PHP: Primary Hyperparathyroidism.

Conclusions: Clinicians should pay special attention to higher prevalence of PHP among RA patients compared to the general population. Presence of PHP in RA patients may aggravate the effect of RA on bones and joints by means of interaction with cytokines and inflammatory markers involved in RA. Concurrent PHP can be diagnosed at early stage by testing PTH and calcium levels which minimize the future morbidities e.g. fracture due to osteoporosis.

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FRI0140 COMORBIDITY AND SURGERY HISTORY OF RHEUMATOID ARTHRITIS PATIENTS WHO ARE RECEIVING BIOLOGICAL AGENT

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Background: Rheumatoid arthritis (RA) is a chronic and autoimmune disorder that primarily affects middle and older ages. Comorbidities are important during RA treatment.

Objectives: We aim to determine the frequency of comorbidities and surgical history in the RA patients who receive biological agents.

Methods: Hacettepe University Biologic Registry (HUR-BIO) includes demographic and clinical data of patients treated with biological agent since 2005. By August 2016, 1235 RA patients were recorded in the database. Age, gender, smoking habits, disease duration, rheumatoid factor, anti citrullinated peptide (CCP), C-reactive protein (CRP), erythrocyte sedimentation rate (ESR), current and previous treatments, comorbidities and surgical history of patients were analyzed. Comorbidities and surgery history were determined by patients medical records. Disease activity was estimated by the 28-joint activity calculator- C reactive protein (DAS28-CRP). Functional assessment was evaluated by the Health Assessment Questionnaire (HAQ).

Results: Mean age (SD) of the patients (79.8% women) was 53.1 (12.6) and the mean disease duration was 11.0 (7.7) years. Of patients, 166 (16.6%) were older than 65 years. A total of 630 (63%) patients education level were less than high school, 197 (19.7%) of the patients were graduated from university. Smoking habitus of patients was as follows, 599 (59.9%) never smoked, 189 (18.9%) current smoker and 212 (21.2%) ex-smoker. At least one cardiovascular risk factor was detected in 699 (69.9%) patients. Comorbidities and surgical history of patients were shown in the table below. Patients with at least one comorbidity had less frequently female (77.3% vs 84.5%, $p=0.007$), high seropositivity of RF (66% vs 57.1%, $p=0.004$), high patient global assessment (4.4±2.5 vs 3.9±3.9, $p=0.007$), high fatigue score (4.6±3 vs 3.9±3.1, $p=0.001$), high pain score (4.8±2.5 vs 4.0±2.8, $p=0.009$), DAS-28 (3.43±1.39 vs 3.17±1.48, $p=0.009$) and high HAQ score (0.72±0.59 vs 0.58±0.54, $p=0.001$) than patients without comorbidities.

Conclusions: Comorbidities and past surgical history should be considered in RA patients when biological therapy is indicated. Comorbidities is one of the important conditions for physicians to manage patients. Cardiovascular, chronic viral infection such as hepatitis B and C, tuberculosis and cancer have to be

Table: Comorbidity and surgery details in RA patients

	Female	Male	Total	p
Comorbidity				
Obesity (BMI >30)	382 (34.3)	54 (10.2)	436 (44.5)	0.000
Hypertension	388 (35.0)	41 (7.8)	429 (43.8)	0.000
Diabetes mellitus	313 (28.2)	15 (2.9)	328 (33.6)	0.000
Chronic kidney disease	128 (11.7)	4 (0.8)	132 (13.5)	0.000
Ischemic heart disease	31 (2.8)	13 (2.5)	44 (4.5)	0.225
CVA	4 (0.4)	4 (0.8)	8 (0.8)	0.203
Arteriosclerosis	5 (0.5)	7 (1.3)	12 (1.2)	0.398
Subtotal colectomy	1 (0.1)	0 (0.0)	1 (0.1)	0.802
Hepatitis B	12 (1.1)	7 (1.3)	19 (1.9)	0.215
Hepatitis C	18 (1.6)	4 (0.8)	22 (2.2)	0.123
Cancer	29 (2.6)	4 (0.8)	33 (3.4)	0.047
Surgery history				
Spinal surgery	29 (2.6)	4 (0.8)	33 (3.4)	0.047
Orthopedic surgery	77 (7.0)	33 (6.3)	110 (11.3)	0.768
Non-orthopedic	28 (2.6)	5 (1.0)	33 (3.4)	0.14
Hypertension	36 (3.3)	3 (0.6)	39 (4.0)	0.005
Diabetes mellitus	38 (3.5)	7 (1.3)	45 (4.6)	0.004
Chronic kidney disease	77 (7.0)	7 (1.3)	84 (8.6)	0.000
Appendicitis	79 (7.3)	30 (5.8)	109 (11.2)	0.017
Cholecystitis	29 (2.7)	11 (2.1)	40 (4.1)	0.002
Cholecystectomy	36 (3.3)	12 (2.3)	48 (4.9)	0.058
Kidney	64 (5.9)	15 (2.9)	79 (8.1)	0.008
Prostatectomy	117 (11.2)	-	117 (11.9)	-
Breast surgery	34 (3.1)	4 (0.8)	38 (3.9)	0.042
Gynaecology	37 (3.4)	3 (0.6)	40 (4.1)	0.002
ENT surgery	40 (3.7)	36 (6.7)	77 (7.9)	0.005
Neurology	79 (7.3)	36 (6.7)	115 (11.7)	0.000
Pulmonary surgery	8 (0.7)	4 (0.8)	12 (1.2)	0.801
Cardiovascular surgery	21 (1.9)	4 (0.8)	25 (2.6)	0.008

CI, Confidence Interval; CVA, Cerebrovascular accident; GI, Gastrointestinal; HCC, Hepatocellular carcinoma; ICH, Intracerebral hemorrhage.

investigated to start biological treatments. Surgical history such as cataracts, orthopedic surgery were also important for clinicians. HURBIO data demonstrated that patients with at least one comorbidities reflects more negative patient outcome measures.

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FRI0141 LEFT VENTRICULAR CONCENTRIC REMODELING IS MORE PREVALENT IN RHEUMATOID ARTHRITIS: A CASE-CONTROL STUDY

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Background: Patients with rheumatoid arthritis (RA) have a higher risk to develop cardiovascular complications than general population (1), leading to a decrease in life expectancy of 3 to 10 years (2). RA is associated to increased left ventricle mass, pericardial effusion and diastolic dysfunction (3).

Objectives: The aim of this study was to assess the structure and function of the left ventricle in patients with RA and compare the results with matched controls.

Methods: We designed an observational cross-section case-control study. Patients diagnosed with RA according to the 1987 ACR and/or 2010 ACR/EULAR classification criteria. 40–75 years old, with no overlap syndromes, atherosclerotic cardiovascular disease or hypertension were included. Subjects for the control group were matched by sex, age and comorbidities. A board-certified cardiologist performed a transthoracic echocardiogram.

Results: We included a total of 44 RA-patients and 26 control subjects. Table 1 summarizes the demographic characteristics for each group. Left ventricular concentric remodeling (LVCR), defined as a relative wall thickness (RWT) >0.42 cm and a left ventricular mass index (LVMI) ≤95 gm/m² in women and ≤115 gm/m² in men, was found in 14 patients (32.6%) of the RA-group and 2 subjects (8%) of the control group; this difference was statistically significant ($p=0.021$). When we analyzed general abnormalities of left ventricle (either LVCR or left ventricular concentric hypertrophy [RWT >0.42 cm and LVMI >95 gm/m² in women, >115 gm/m² in men]) we found 15 RA patients (34.1%) with abnormalities and 3 subjects in the control group (11.5%) ($p=0.037$). There were no statistically significant differences among the groups in LVMI, diastolic dysfunction, global longitudinal strain or ejection fraction.

Table 1. Demographic characteristics

	RA group (n=44)	Control group (n=26)	p
Age, mean ± SD	52.35±7.34	53.94±6.81	0.371
Disease duration (years), mean ± SD	10.68±8.3321	-	-
DAS-28 CRP, mean ± SD	3.36±1.42	-	-
Women, n (%)	43 (97.7)	24 (92.3)	0.279
Body Mass Index, mean ± SD	26.98±6.13	28.3±4.12	0.956
Active smoking, n (%)	4 (9.1)	0 (0)	0.113
Type 2 Diabetes mellitus, n (%)	2 (4.5)	2 (7.7)	0.584

DAS-28 CRP - Disease activity score 28 using C-reactive protein.

Conclusions: Left ventricle concentric remodeling is more prevalent in RA-patients when compared to controls. Further research is needed to determine the impact of these findings in the clinical prognosis of RA-patients.

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