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### THE EFFECT OF METABOLIC SYNDROME ON CARDIOVASCULAR DISEASE AND CUMULATIVE ORGAN DAMAGE IN TAKAYASU'S ARTERITIS

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**Background:** As a result of arterial ischemia, the frequencies of hypertension (HT), ischemic heart disease, congestive heart failure and atherosclerosis have been shown to increase and contribute to mortality in patients with Takayasu's arteritis (TAK). Determining cardiovascular disease (CVD) and associated risk factors in TAK is important for a comprehensive treatment approach and better disease prognosis. Data about the effect of metabolic syndrome (MetS) which is known as a risk factor for CVD on TAK are limited.

**Objectives:** The aim of this study was to determine the prevalence of MetS in patients with TAK and its effect on CVD and cumulative organ damage.

**Methods:** A total of 122 TAK patients, followed by Turkish Takayasu Study Group in 7 tertiary Centers and diagnosed according to the 1990 ACR criteria were consecutively assessed for cumulative organ damage (VDI score), history of CVD and MetS as defined by the National Cholesterol Educational Program Adult Treatment Panel III (NCEP ATP III). CVD was defined as coronary artery disease or cerebrovascular event (myocardial infarction or stroke).

**Results:** Eighty-seven percent of patients were female and the median age was 39 (17-65) years. The frequency of MetS was 14.7% and CVD was 13.1%. The median age, disease duration, smoking prevalence and CVD were found slightly higher in MetS group, without reaching statistical significance. There were no differences in VDI score between the groups (Table 1).

**Table 1.** Cardiovascular disease (CVD) and cumulative organ damage distributions according to the presence of MetS in patients with Takayasu's arteritis

	MetS+TAK n: 18	MetS-TAK n: 104	p values
Age (median, min-max)	44 (27-63)	37 (18-65)	0.056
Disease duration (year, mean±SD)	11.7±9.2	10.0±9.3	0.535
Female n (%)	17 (94)	89 (86)	0.273
Smoker n (%)	3 (17)	10 (10)	0.583
CVD n (%)	4 (22)	12 (16)	0.202
Cumulative GC(g, mean±SD)	9.8±6.1	10.1±9.1	0.872
NIH-Aktive n (%)	3 (17)	13 (13)	0.462
VDI (mean±SD)	4.1±2.6	4.2±2.6	0.941

(TAK: Takayasu's arteritis, MetS: Metabolik sendrom, SD: Standart deviation, GC: Glucocorticoids, NIH: "National Institutes of Health", VDI: "Vasculitis damage index")

**Conclusion:** MetS frequency in our TAK patients was observed to be less than the normal population data obtained from METSAR (Turkish MetS study in normal population) in Turkey (female: 39.6%, male: 28%). The discrepancy with SLE, which is another inflammatory autoimmune disease having a higher frequency of MetS related with organ damage, may be explained with the potentially more severe disease course in SLE patients requiring higher cumulative doses of glucocorticoids (1).

#### REFERENCE

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### SERUM CATHELICIDIN (LL 37) LEVELS IN PATIENTS WITH BEHCET'S DISEASE AND ITS ASSOCIATION WITH DISEASE ACTIVITY

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**Background:** Behcet's disease (BD) is a recurrent multisystem inflammatory disease which is characterized by recurrent episodes of oral aphthous and genital ulcers, ocular inflammation and skin lesions. Antimicrobial peptides (AMPs) such as the cathelicidin (LL-37) and defensins have recently been implicated in the pathogenesis of autoimmune and autoinflammatory diseases.

**Objectives:** The aim of this study was to investigate the serum levels of cathelicidin and its potential association with disease activity, and some other laboratory parameters such as erythrocyte sedimentation rate (ESR) and C-reactive protein (CRP), white blood cell count (WBC) in patients with BD.

**Methods:** A total of 45 patients who presented to Dicle University Rheumatology clinics between September 2018 and December 2018 and met the International Study Group Classification Criteria for BD and 37 healthy control subjects who presented to Dicle University Physical Medicine and Rehabilitation clinics for various reasons other than rheumatoid complaints between the same dates were included in this study. Patients' demographic features, including age and sex, were noted. Duration of disease was also noted, and the disease activity was assessed by means of BD Current Activity Form (BDCAF). Laboratory investigations included erythrocyte sedimentation rate (ESR), C-reactive protein (CRP), complete blood count and routine biochemical analyses. Serum levels of cathelicidin (LL 37) were determined by means of human cathelicidin antimicrobial peptide ELISA Kit according to the manufacturer's protocol.

**Results:** Serum mean level of cathelicidin (LL 37) in patients with BD was lower than healthy controls but this result was not statistically significant. Cathelicidin levels were not correlated with ESR, CRP, BDCAF and WBC (p>0.05).

**Conclusion:** However serum mean levels of cathelicidin (LL 37) were lower in patients with BD compared to healthy controls, this result was not statistically significant. It may be sourced from our relatively small sample size. To validate cathelicidin (LL 37) value as a prognostic or pathophysiologic biomarker, future studies should investigate the levels of cathelicidin LL37 in patients with BD in large cohorts of patients with different levels of disease activity, remission, and relapse.

#### REFERENCE

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