ASSOCIATION BETWEEN PBMC SUBPOPULATIONS AND CAD RISK FACTORS IN ANKYLOSING SPONDYLITIS PATIENTS

Objectives: To assess the association between cardiovascular disease risk factors and peripheral blood T cells in patients with Ankylosing Spondylitis (AS) complicated with cardiovascular disease (CVD), specifically the comparison between AS patients with CVD and those without CVD.

Methods: Forty-one AS patients were enrolled, 27 with CVD and 14 without CVD. PBMCs were isolated and analyzed using a flow cytometer to detect T cells and their subpopulations. The association between PBMC subpopulations and CVD risk factors was evaluated using a multivariate logistic regression.

Results: Compared to the AS group, AS patients with CVD had a significantly increased number of Th17 cells (P=0.007), decreased Treg cell counts (P=0.03), and a higher Th1/Th2 ratio (P<0.001). The Th17/Treg ratio was also higher in the AS with CVD group (P=0.005). Smoking (odds ratio: 3.28; 95% CI: 1.09-9.77), diabetes (odds ratio: 8.03; 95% CI: 2.15-31.50), and elevated levels of CRP (odds ratio: 1.01; 95% CI: 1.002 - 1.016) were significantly correlated with the onset of CVD in AS patients.

Conclusion: Smoking, diabetes, and elevated CRP are important risk factors associated with CVD in AS. The identification of these risk factors could help in the early detection and management of CVD in AS patients.