AB0335

THE CORRELATION OF CORRELATION OF TH17 AND TREG CELL LEVELS OF IN CORONARY HEART DISEASE PATIENTS WITH RHEUMATOID ARTHRITIS

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Background: Rheumatoid arthritis (RA) is a prevalent chronic autoimmune inflammatory disease. Also acute coronary syndrome (ACS) is a prevalent chronic inflammatory disease. Now more and more studies have also shown that coronary heart disease is also associated with immune inflammation. We will discuss Th17 and Treg cell levels in patients with rheumatoid arthritis combined with coronary heart disease and simple rheumatoid joints as well as normal people. Its pathogenesis is closely associated with a failure of endogenous immune tolerance that caused by the imbalance of CD4/CD8. New T subgroup Th17 Treg, T lymphocytes play an important role in the occurrence and development of RA and ACS. Moreover, T lymphocytes are one of the first cells to be recruited into atherosclerotic plaques¹, and most adhesion molecules and chemokines that promote the migration of monocytes to the intima are also related to T cell recruitment. T lymphocytes mainly divided into two major subsets of CD4/CD8, including CD4⁺T helper cells, which are classified into Th1Th2 and newly discovered Th17 cells and regulatory T cells subgroup, have the effect of the immune response to promote the immune, and CD8⁺ play the role of killer cells and suppress the immune response. Similar to CD8, (Treg) lymphocytes can reduce the body's anti-tumor ability by inhibiting cell contact and the production of inhibitory factors and effector T cells

Objectives: Through clinical studies, we want to explore whether the proportion of Th17/Treg in peripheral blood of RA with ACS patients is reduced to indicate whether the immune balance is broken, thus providing further data for clinical studies

Methods: In April 2017 to September 2018 in our hospital Patients with RA and ACS diagnosed by Coronary angiography in our hospital of 20 cases male:9 female:12 into the research object, the diagnosis of ACS combined with clinical data of 20 patients as Observation group. These patients have been diagnosed with rheumatoid arthritis. Another 20 rheumatoid arthritis patients male: 11 female:9 were collected from the rheumatology department of our hospital, and 20 normal healthy people male:10 female:10 were collected from the physical examination center of our hospital, as control group

Chart-1

RA with ACS group

Chart-2

RA group

Control group

Results: Compared with the control group, the proportion of Th17 cells and Treg cells in peripheral blood of RA with ACS and RA groups increased and decreased respectively ($P < 0.05$). Compared with the RA group, the proportion of Th17 cells in the peripheral blood of RA with ACS group increased, while the proportion of Treg cells decreased ($P < 0.05$). The proportion of Th17 cells in RA with ACS group was higher than that in RA group and control group ($P < 0.05$). Th17/Treg ratio in control group, RA group, ACS and RA groups were respectively. Compared with the control group, Th17/Treg increased in the RA with ACS and RA groups, and the RA with ACS group was higher than the RA group, with statistically significant differences ($P < 0.05$), but the ratio between the RA group and the control group was not significant

Conclusion: Through this rare clinical study, it was found that the levels of Treg cells and Th17 cells in patients with rheumatoid arthritis combined with coronary heart disease were to some extent higher than those in patients with rheumatoid arthritis alone and normal healthy people. We can speculate whether it is possible to find a target for Treg cell Th17 cell levels in patients with RA with ACS expanding the sample study again, so as to intervene as early as possible and regulate the immune balance to avoid the progression of coronary heart disease and adverse cardiovascular events

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AB0336

COMPARATIVE ANALYSIS OF ESTIMATED BONE MASS AND BONE MINERAL DENSITY IN PATIENTS WITH RHEUMATOID ARTHRITIS FROM THE CHIKARA STUDY

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Background: Patients with rheumatoid arthritis (RA) have lower muscle mass and a higher rate of sarcopenia than healthy individuals. The relationship between rheumatoid arthritis and bone loss is well known. Dual energy X-ray absorptiometry (DEXA) and bioelectrical impedance analysis (BIA) are used to diagnose sarcopenia, but the correlation between bone mineral density and estimated bone mass is unknown.

Objectives: To investigate the correlation between bone mineral density and bone mass in RA patients.

Methods: Data from a prospective observational study (CHIKARA study) were analyzed. Bone mineral density (BMD) was measured by DEXA, and bone mass was measured by BIA on the same day, and the correlations between BMD at each measurement site and bone mass were evaluated.