Conclusion: The incidence of invalid results for the T-SPOT.TB assay has been reported to be as low as 0.6% (3). The results of this assay for screening of LTBI in HTLV-1-positive RA patients should be interpreted with caution. Furthermore, our results show that an increase in IFN- γ producing T cell numbers due to HTLV-1 infection in RA patients may affect the pathogenesis of RA.

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AB0269

THE CHARACTERISTICS OF PERIPHERAL LYMPHOCYTE SUBSETS AND CYTOKINE LEVEL IN RHEUMATOID ARTHRITIS WITH CORONARY ARTERY DISEASE

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Background: Rheumatoid arthritis (RA) is a systemic autoimmune disease. It is characterized by highly disabling polyarthritis, but extra-articular features are also common and portend a poor prognosis. Compared with the general population, the incidence and mortality of cardiovascular disease in RA are significantly increased. Chronic autoimmune inflammation is the common pathogenesis of RA and coronary heart disease (CAD). We've proved that lymphocyte subsets imbalance and high cytokines expression play an important role in the occurrence and development of RA diseases. However, the level of lymphocyte subsets and cytokines of RA patients with CAD are rarely reported [1-2].

Objectives: To explore the clinical characteristic of lymphocyte subsets and cytokines of RA patients with CAD, and make comparisons with simple RA patients and healthy controls.

Methods: The study included 96 patients with a diagnosis of RA according to the 1987 revised criteria of the ACR, including 54 RA patients with CAD and 42 RA patients without CAD and other cardiovascular disease, 40 healthy controls are also concluded. The absolute numbers of lymphocyte subsets and T subsets in peripheral blood were measured by Flow Cytometer (FCM). Serum levels of IL-2, IL-4, IL-6, IL-10, IL-17, INF- γ , and TNF- α were measured by flow microsphere capture chip technique (CBA) for 19 RA patients with CAD and 38 simple RA patients among 96 patients. We also collected relevant clinical information and made DAS28 score, and all patients are in the middle-high disease activity group (DAS28>3.2).

Results: (1) There was no difference in DAS28 scores between the two groups ($p=0.572$). (2) Compared with RA patients without CAD, the absolute number of total T cell ($P=0.035$), total B cell ($P=0.006$), CD4+T cell ($P=0.012$), Th1 cell ($P=0.037$), Th17 cell ($P=0.033$) and CD4+CD25+FOXP3+ Treg ($P=0.003$) was lower than RA patients with CAD, the number of NK cell ($P=0.685$), CD8+T cell ($P=0.322$) and Th2 cell ($P=0.770$) had no obvious difference between them. (3) Compared with the healthy control, the absolute number of total T cell ($P=0.014$), total B cell ($P=0.006$), CD8+T cell ($P=0.000$) in RA with CAD was evidently lower, but there was no significant difference in absolute number of CD4+T cell ($P=0.582$), Th1 cell ($P=0.052$), Th2 cell ($P=0.595$), Th17 cell ($P=0.148$) and Treg ($P=0.176$) (Figure 1). (4) In RA patients with CAD, the level of cytokines IL-2 ($P=0.042$), IL-4 ($P=0.043$) and IL-17 ($P=0.012$) was lower, while other cytokines had no difference (Table 1).

Figure 1. The absolute number of lymphocytes of RA patients with CAD ($n=54$), RA patients without CAD ($n=42$) and healthy control ($n=40$). (* $P<0.05$, ** $P<0.01$, *** $P<0.001$).

Table 1. The expression level of cytokines of RA patients with CAD ($n=19$) and RA patients without CAD ($n=38$).

Cytokines (pg/ml)	RA and CAD group(A) (n = 19)	RA group(B) (n = 38)	P value A vs. B
IL-2	5.50(1.96, 12.82)	6.82(4.45, 14.44)	0.042
IL-4	4.93(1.67, 9.41)	6.28(4.49, 11.88)	0.043
IL-6	23.69(10.93, 73.08)	36.67(15.40, 72.50)	0.636
IL-10	7.76(4.54, 10.50)	7.62(5.69, 19.91)	0.223
IL-17	10.81(4.04, 20.25)	20.68(13.88, 45.58)	0.012
IFN- γ	6.10(3.27, 13.84)	7.13(5.79, 15.83)	0.115
TNF- α	10.49(2.50, 29.04)	14.96(10.03, 30.39)	0.097

Conclusion: Our research shows that there is lymphocyte imbalance and immune disorder existing in RA patients with CAD. Both the number of lymphocyte subsets and cytokine levels decreased in these patients than pure RA patients. It suggests that this group may be in lower immune state, which providing guidance for further clinical treatment of RA patients with CAD.

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AB0270

THE IMPACT OF DIABETES MELLITUS ON OUTCOMES OF RHEUMATOID ARTHRITIS AT 5-YEAR FOLLOW-UP: RESULTS FROM A MULTI-ETHNIC ASIAN COHORT IN SINGAPORE

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Background: Both diabetes mellitus (DM) and rheumatoid arthritis (RA) are prevalent diseases and represent the leading causes of disability and mortality worldwide. Systemic chronic inflammation is recognized as the underlying