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A simple method for removing low-density granulocytes to purify T lymphocytes from peripheral blood mononuclear cells

Key words: Low density granulocytes; Neutrophil extracellular traps; Autoimmune diseases; Peripheral blood mononuclear cells; Method; T-SPOT.TB.

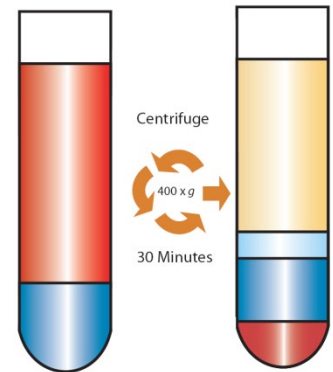
Research Summary

This study focused on the profiles of LDGs in common autoimmune diseases and methods for removing LDGs from PBMCs.

The percentages of LDGs in PBMCs were tested by flow cytometry in common autoimmune diseases

Methods of removing LDGs from PBMCs

1. Increasing RCF to 600g / RCF 800g
2. PBMC adherence method
3. Whole blood sedimentation method



T-SPOT.*TB* test was used to identify the influence of LDGs on T lymphocyte functions

Innovation points

- LDG were commonly increased in autoimmune diseases

- PBMC adherence method is a simple, easy-to-use method for removing LDGs and purifying T lymphocytes from PBMCs.

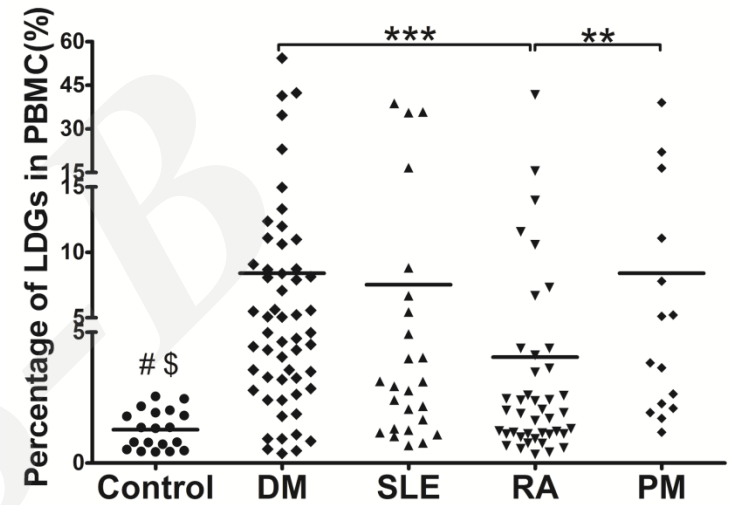


Figure 1

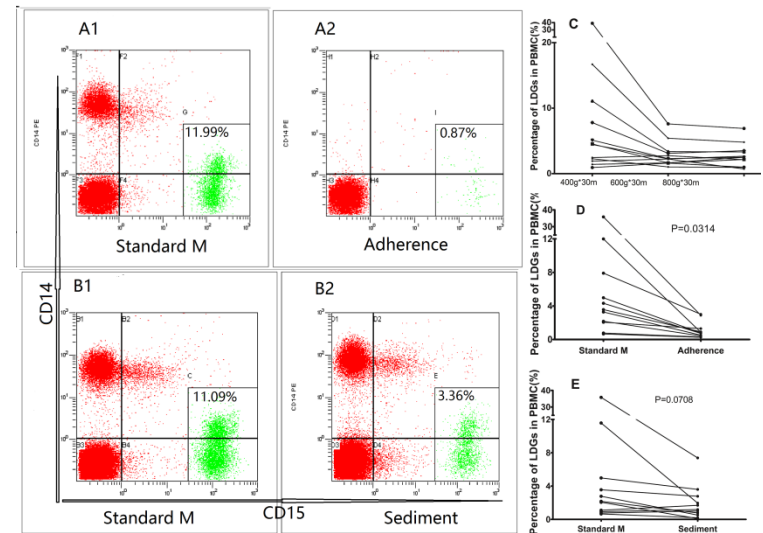


Figure 3

Innovation points

- The T-SPOT.TB values significantly decreased after LDGs were removed

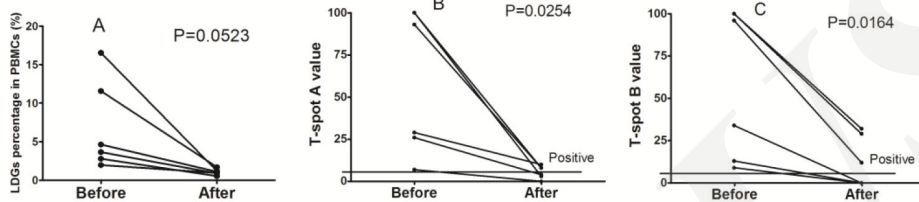


Figure 2

- The PBMC adherence method can remove LDGs from PBMCs efficiently while affecting the T lymphocyte percentage in PBMCs minimally

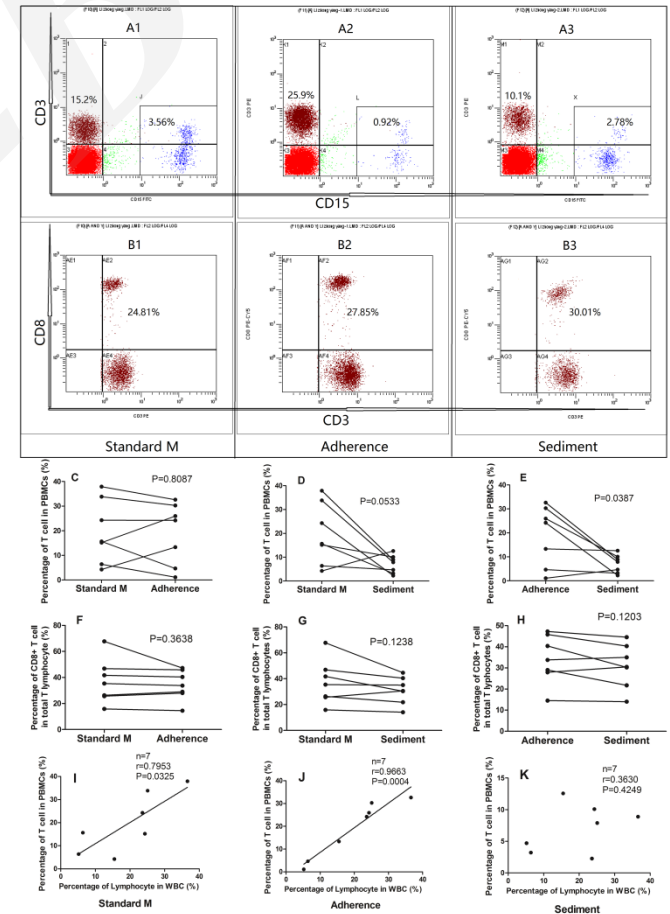


Figure 5