Original Paper

NK, T and B lymphocyte populations in infertile women

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Abstract

Background and Objective: Many different factors and problems can cause infertility. This study carried out to compare NK, T and B lymphocyte populations in peripheral blood of fertile and infertile women.

Materials and Methods: In this case - control study 30 infertile women and 15 non pregnant women participated. The non pregnant women had a history of at least two alive children as a control group. The monoclonal antibodies and flowcytometry were used for evaluation of T cell subpopulations (CD3, CD4, CD8), B cells (CD22) and NK cells (CD56) in fertile and infertile women.

Results: NK cells (CD56) significantly increased in infertile women compared with control groups (P=0.009) and T lymphocytes CD3, CD4 significantly reduced in infertile women compared with fertile women (P=0.013, P=0.004, respectively). CD4/CD8 ratio reduced in infertile women compared with fertile women (P=0.05). There was no difference in B cells and CD8 T cells in infertile women compared with controls.

Conclusion: This study showed that NK cells increase and CD4 T lymphocytes reduce in infertile women. Our results suggest the immunological alterations may be related to infertility.

Keywords: Infertility, T Lymphocytes, NK cells, B cells, Flowcytometry

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