

Abstract

Currently, up to 15 % of reproductive age couples struggle with infertility. Female infertility is the cause of conception issues in nearly 40 % of these cases. The origin of female infertility consists of wide range of causes and other factors. Immunological causes are certainly one of the most significant ones. In pathological conditions, defense mechanisms of female immune system can target alloantigens presented on sperm surface. Moreover, autoimmune response and antibody production can occur as well. Antibodies can target various parts of ovarian follicles and oocytes, phospholipids, nuclear antigens, enzymes etc. These antibodies can inhibit fertilization, maturation of oocytes and embryo, embryo implantation, and also recurrent miscarriages.

The aim of this thesis is to summarize various causes of female infertility focusing on immunological pathologies. The thesis also describes functioning of immune mechanisms in the female reproductive tract and briefly touches on oogenesis and female hormonal cycle.