

MECHANISM OF IMMUNE RESPONSE ON INJECTION OF DIPHTHERIA-TETANUS MODIFIED ANATOXIN

Kovinka A., Hnatiuk V.

National University of Pharmacy, Kharkiv, Ukraine

anastasiyakovinka@mail.ru

Vaccines prophylaxis belongs to the guiding factors of reduction morbidity, heaviness of clinical trial and lowering of death-rate and the number of complication among the sick on infection diseases. The important achievements in medicine with the questions of liquidation smallpox in the world, important reduction morbidity on poliomyelitis, diphtheria and measles became possible only due to effective vaccine preparations against excitors of these infections. Not only children but also adults need carrying out vaccination because of the need to be defended from diseases, which threaten difficult complications. To such methods of prophylaxis might be taken antigen inoculation diphtheria-tetanus modified anatoxin.

Purpose of studies is to explore the mechanism of immune response on injection of diphtheria-tetanus modified anatoxin.

Stuff and technique: information-bibliographic analysis of scientific studies.

Results of studies. The component parts of diphtheria-tetanus modified anatoxin include the mixture of tetanus and diphtheria antitoxins, which relate to high-cleaned toxins, which do not have a generally toxic influence on human organism but cause an immunology reaction. In the mechanism of immune response on injection of diphtheria-tetanus modified anatoxin there are a few stages: induction, immune regulation, effector stage, stage of immunology mind. In the induction stage antigens are captured by macrophageins, the procession and presentation to T-lymphocytes takes place. The immune regulation stage is characterized by proliferation and differentiation of immune competent cells, activation of bone marrow, ripening in plasma cells, formation of mind cells. Effector stage is the stage of activation of effector cells and formation of circulatory antibodies. In general, the process of immune response injection of diphtheria-tetanus modified antigen lasts about three weeks. The main antibodies appearing due to injection antigens are IgG whose functions are neutralization of viruses and toxins, opsonization and lysis of bacteria.

Conclusions. Diphtheria-tetanus modified anatoxin belongs to injections which cause the beginning of specific immunity, which remains in the organism for a long time and by a new contact with microorganisms stimulates a powerful immune response.