

THE ROLE OF MACROPHAGES IN THE MUCOUS OF THE FALLOPIAN TUBES IN PROVIDING LOCAL IMMUNE RESPONSE

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Objective. Study of the role of macrophages of the mucous of the fallopian tubes in providing a local immune response. **Results.** For diffuse lymphoid tissue of the mucous of the fallopian tubes in the proliferative and secretory phases of the menstrual cycle, the presence of macrophages is predominantly found in the isthmus of the fallopian tubes. Macrophages play an important role in the process of immunological selection of spermatozoa. In this case, in the female reproductive system, macrophages carry selection of spermatozoa by phagocytosis before fertilization, and also exhibit immunosuppressive properties. Macrophages constantly capture and destroy old cells. In the life cycle of macrophages, two phases are distinguished: immature and mature. For the immature phase, a typical pronounced phagocytosis and processing of antigens. In the phase of mature macrophages, the ability to phagocytosis is lost and all functions are shifted toward antigen-presenting cells. For mature macrophages, high expression of antigen presenting and costimulatory molecules (MHC / HLA-II, CD80, CD86 and CD83) is characteristic. There are two main groups of mature macrophages: classically activated (M1) and alternatively activated (M2). Depending on the conditions, macrophages are able to change their phenotype, consistently involved in the induction of immunity and reparative processes. M1-macrophages belong to proinflammatory effector, whereas M2-macrophages exhibit anti-inflammatory activity, participating in the elimination of inflammation. M2-macrophages have increased phagocytic activity, producing mainly anti-inflammatory cytokines and trophic factors. M2 macrophages are characterized by a high content of surface antigen CD206, IL-10 and a low level of IL-12. **Conclusions.** Thus, the peculiarity of the functioning of macrophages of the maternal tubal lining is a high activity in providing innate and specific local immunity, influence on the processes of fertilization and the normal course of pregnancy.

PRODUCTION OF THE ANATOMICAL BONE PREPARATIONS MODELS

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Aim: To select the most optimal method for the production of anatomical preparations of the bones, which must be solid and as close to real anatomical variant as possible. **Materials:** plasticine (sculptural), lubricating oil (beeswax, kerosene, oil), building silicone, gypsum, liquid plastic, clay. **Method of manufacture:** using the plasticine to cover all through and deep holes of the bone. Carefully grease the entire surface of the bone with lubricating oil. To put a small amount of silicone on the entire surface of the bone with a layer of 1-2mm. To leave until it will be completely dry. The remaining layers of silicone should be applied 3-4 mm, until the layer reaches a thickness of about 1.5 cm. Further, divide the bone (in silicone) into 3 parts. Gease one part with the lip itself. Using gypsum to lubricate surface. The resulting part of the gypsum coat should be about 2-3cm. Similarly, make 2 other parts of the coat. After the gypsum coat is ready it must be disconnected and separated from the silicone. To put the plastic in a silicone mold. To drill the necessary details, paint the bone into the necessary color. **Results of the work:** the obtained samples correspond to the required qualities: relative strength, similar to the original sample, cheap in production. The limitation is the long time of making. **Conclusions:** We have chosen the most optimal method for the production of anatomical preparations of the bone system, which is solid and as close to real anatomical variant as possible.