

rial palmar arches of the hand was confirmed. A clinically significant group of patients with a high risk of complications in cases of exclusion from the active bloodstream of the radial artery has been identified.

COMPETENCY-BASED EDUCATIONAL APPROACH FOR FORMATION OF ANATOMICAL COMPETENCY IN HIGH MEDICAL SCHOOL

Khayrullin R. M.

Ulyanovsk State University, Ulyanovsk, Russia
prof.khayrullin@gmail.com

Key words: *human anatomy, anatomical competency, competency-based education*

Basic disciplines in the foundation of higher medical education and the initial stages of training at the university, each in themselves play an important role in the creation of a certain knowledge base on the structural organization of the human body. The sequence of the studying of disciplines is the basis of the system of mastering medical knowledge in general, but its effectiveness without additional integration tools is rather low. Often the effectiveness is reduced because of the lack of a real continuity of the learning process of the departments of the morphological cycle. The competency-based approach, currently being developed in many advanced medical schools, can become the basis for effective integration. The aim of the study is to demonstrate the possibility and necessity of implementing the basic practical skill of a student of higher medical school — anatomical competency at different stages of studying human anatomy, from descriptive anatomy to surgical practice. The basic idea of implementing a competency-based approach in mastering the structural organization of the human body from the descriptive anatomy of a human on a corpse to surgical manipulations on a living human is the creation of a certain set of practical skills for searching, determining and manipulating with the anatomical structures of the human body and the criteria for their assimilation which correspond to certain of levels of anatomical competency. It is assumed that, there are three levels of realization of anatomical competency of a specialist — mental — descriptive, model, virtual — digital, with the possibility of digital manipulation and real, with the ability to search, determine and manipulate a living human. These levels can be effectively and consistently implemented at the stage of studying descriptive human anatomy, topographic anatomy and clinical anatomy. Each phase should include the practical skills and knowledge of the previous stage, should have clear evaluation criteria. Consistently integrated on the basis of certain regulates curricula of disciplines at each level will ensure a real continuity and effectiveness of the formation of anatomical

competency of the doctor for subsequent practical activities.

THE EXPERIMENTAL EVALUATION OF THE TRANSGENERATIONAL EFFECT OF THE SYNESTROL ON THE MORPHOLOGY OF TESTICLES

*Khayrullin R. M.¹, Sulaymanova R. T.²,
 Baybulatova A. M.², Migranov E. K.²,
 Sulaymanova L. I.³*

¹ Ulyanovsk State University, Ulyanovsk, Russia
prof.khayrullin@gmail.com

² Bashkir State Medical University, Ufa, Russia
rimma2006@bk.ru

³ Moscow City Polyclinic № 52, Moscow, Russia

Key words: *testes, spermatogenic epithelium, synestrol, transgenerational effect*

Background. Prenatal exposure of various doses of estrogens and estrogen-like substances has a modulating effect on the morphogenesis of reproductive system organs, fertility and reproductive behavior of male offspring. However, the dose-dependent effects of this effect differ and the data from the various studies often contradict each other.

Aim. The aim of this study was an experimental evaluation of postnatal structural and functional changes in the testicle parenchyma in the offspring of laboratory mice exposed during intrauterine period of the germinating of testes by the influence of injection of synestrol to their mothers.

Material and Methods. The studies were carried out on pregnant females of laboratory mice weighing 23–25 g, divided into control and experimental groups. Pregnant females mice of the experimental group were administered by a subtoxic dose of 40 µg of synestrol per animal intramuscularly at stage E11.5. In the obtained male progeny, testicles were isolated on the 90th day of postnatal life and morphometric parameters of the spermatogenic epithelium were examined in them.

Results and Discussion. As a result of the study, it was established that after the prenatal exposure of the synestrol, no significant differences in morphometric parameters were observed in the preparations of the testicles of experimental and control animals. There were no differences in the average area of cells of the spermatogenic epithelium, the number of cells per unit of the area, the total area of the spermatogenic epithelium, the area of the cytoplasm, and the nuclear-cytoplasmic ratio of the cells.

Conclusions. Thus, high doses of synestrol during the testes germinating period in laboratory mice do not cause a transgenic prenatal effect on the structural and functional indices of spermatogenic epithelium in postnatal ontogenesis.