If you take the averages for all age groups 20-60 let, the size of normal adrenal gland in front of cross-sections are estimated to be: the height of the medial leg right adrenal gland – 19,2 ± 4 mm; length of lateral leg right adrenal gland – 12,6 ± 3 mm. The height of the medial leg right adrenal gland in axial transects – 22,19 ± 5,65 mm; length of lateral leg right adrenal gland in axial cross-sections – 12,41 ± 4 mm.

The averages for the left adrenal gland for all age groups were: the height of the medial leg left adrenal gland in front of cross-sections – 21,39 ± 4,44 mm; length of lateral leg left adrenal gland in front of cross-sections 12,91 ± 3 mm. Size of left adrenal gland for all age groups – 20-60 let in axial transects were: the height of the medial leg – 20,14 ± 4,68 mm wooden; length of lateral leg left adrenal gland – 15,0 ± 4,68 mm wooden. On the basis of received data can be concluded that the normal left adrenal gland normally more right ($p < 0,01$). These data do not conflict with pat morphological descriptions.

When the characteristic form of the adrenal gland, remember that they are in front of cross-sections in the form of inverted «Y», a long wing which is medial foot and short-lateral. In axial transects form adrenal gland is either in the form of «birds» or inverted or lying on its side of the letter «V»; less frequently, about 3-5 % of cases in axial cross-sections it has branching type of building, contains 2 lateral leg as brush hanging down in parallel. Lateral leg right adrenal gland located close to the bottom of the hollow Vienna and, usually, is welded with it. In the structure of adrenal gland in norm no hypo intensive inclusions, clearly defined cortical and cerebral substance, but may be elements of a lipid infiltration.

The angle of the bland-lateral leg from medial in the frontal plane may be different. For axial cross section it does not matter, while the front rail lateral foot may not completely fit within the plane of the section, i.e. look shorter than it actually is. This explains the diversity of forms of adrenal gland when researching in front of cross-sections. Sometimes lateral foot is angled towards the top, and we are dealing with a variant form, resembling the letter «Y». In axial transects better viewing structure of cerebral and brain substance adrenal gland, and diligence it to the bottom of the hollow Vienna.

Form of adrenal glands, which differ from the norm, but do not have nodular or diffuse hyperplasia, attributed to adenopathy. From the perspective of clinic's – adenopathy – is a condition of endocrine glands, which in the future, under certain conditions, can be transformed into nodular or diffuse hyperplasia or hypertrophy gland or under the influence of any factors (e.g., treatment) to return to normal. In this sense, adenopathy is a term more closely explains a valid functional and morphological range of deviations from the norm. In our study, such changes are identified by 257 sick AG, which amounted to 47 per cent to the group as a whole. However, even if you have high blood pressure, approximately 21 % of patients with adrenal glands do not exceed in size beyond the limits of admissible norm and had no structural abnormalities.

The work was submitted to the international scientific conference «Innovative Medical Technologies», Russia (Moscow), November, 15-17, 2011, came to the editorial office on 23.11.2011.

PECULIARITIES OF PHYSICAL DEVELOPMENT OF JUNIOR SCHOOLCHILDREN OF COMPREHENSIVE SCHOOL AND SPECIALIZED EDUCATIONAL INSTITUTION OF COMPENSATING TYPE IN KRASNODAR KRAI

Minko O.V.

Kuban state university of physical culture, sport and tourism, Krasnodar, e-mail: minko_oles_evil@mail.ru

A special role at the complex of actions that form full-fledged personality of child belongs to the physical development. But as the analysis of literary sources shows, the comparison of the level of child's physical development occurs within the middle-aged rates of physical condition in any single Russian region, usually in Moscow and its area. The aim of this research is examination of morphological peculiarities of physical development of junior schoolchildren of comprehensive school and specialized educational institution of compensating type in Krasnodar krai. For solving this problem in this research there was applied anthropometric method. We used generally accepted anthropometrical instruments: easel wooden stadiometer (for length of the body measurement), metallic auxanometer of Martin, centimeter tape, floor electronic balance. For every child there was created a special «Chart of anthropometric facts», in which there were entered showings, received at the result of measurements. At the experiment there took part children of junior school age about 8–11 years old in quantity of 123 persons, 82 of them were students of Krasnodar comprehensive school № 12 (48 girl and 34 boys) and 41 of them were students of State specialized educational institution of compensating type of Belaya Glina village in Krasnodar krai (20 girls and 21 boys). As the result of research there was stated that the dynamics of average length of the bodies within 8–11 years old children of specialized educational institution of compensating type has positive tendency and is identical to the development of this characteristic within their peers of comprehensive school; by the average showings of body weight student of specialized educational institution have low values in comparison with children of comprehensive school. Thereby, received anthropometrical showings, which characterize physical development of junior schoolchildren of comprehensive school and specialized educational

institution of compensating type, are able to be used for improvement of the process of physical education within the scope of educational program.

The work was submitted to the International Scientific Conference «The introduction of integrated models of educational institutions, implementing educational programs at various levels of education», Singapore, December, 10-17, 2011, came to the editorial office on 01.12.2011.

FEATURES OF ROTATION OF INTESTINAL TUBE IN RAT

Petrenko V.M.

International Morfological Centre, St.-Petersburg, e-mail: deptanatomy@hotmail.com

Rotation of intestinal tube (RIT) passes against hand in 4 stages of human embryogenesis. RIT in white rat was not described in literature. On first stage of RIT (on 90°) midgut is displaced on the right side from hindgut (colon) under pressure of hepatic right lobe. Growth of ventral (preportal) parts of liver predominates on second stage of RIT in man, including passing to the right side and under duodenum. Therefore head of pancreas (HP) grows to the left side with displacing of initial segment of jejunum under sagittal segment of colon and to the left side from midline, where loops of jejunum are formed. II RIT is absent in white rat: growth of dorsal (retroportal) parts of liver predominates, they displace inner organs to bottom of abdominal cavity. Therefore all small intestine remains on the right side from midline, hindgut is on the left side from midline and on the it at more caudal level. HP grows into mesocolon. Caecum with its oblique and sagittal position is on the left edge of caudal part of umbilical hernial sac, loops of ileum occupies the remaining, most part of the sac. III RIT in man manifests as transference of sagittal segment of colon together with caecum and loops of ileum to the right side from midline (transition from sagittal plane in frontal plane). III RIT inverts and reduces in rat:

1) after setting in abdominal cavity loops of ileum are directed by means of hepatic right lobe often to the left side from midline and they displace initial part of colon to the right side with formation its ventral loop;

2) jejunum forms loops on the right side from midline and they «leave» middle part of ascending colon on midline;

3) HP «stretches» colon to the right side with formation dorsal loop of colon, which includes transverse colon and ending of ascending colon (reduced transition from sagittal plane in frontal plane);

4) caecum makes similar turn to the right side (on ≥ 90°) by means of traction of ileum and remains under liver (IV RIT is absent in rat) or passes to the left side from midline and grows in caudal direct, to the left iliac fossa (inverse and reduced IV RIT).

The work was submitted to international scientific conference «Fundamental and applied research in medicine», France (Paris), 15–22 October 2011, came to the editorial office on 23.11.2011.

MORFOGENESIS OF MESENTERIC LYMPH NODES IN RAT

Petrenko V.M.

International Morfological Centre, St.-Petersburg, e-mail: deptanatomy@hotmail.com

I study development of mesenteric lymph nodes (MLN) in white rat, including 40 embryos of 12-21 days, the 10 new-born´s (first day) and 40 rats of first month, on serial histological sections, staining by hematoxylin and eosin, picrofuxine, azur-II and eosin, silver nitrate with graphice reconstruction, and total preparations after injection of dark-blue mass of Gerota into mesenteric lymphatic bed. In the fetuses of 18-19 days cranial mesenteric artery and its branches invaginate into lumen of neighbouring mesenteric lymphatic vessels together with their endothelial walls and intermediate connective tissue. In result is formed common anlage of MLN as stromal tape. It becomes lymphoid tape in the fetus of 20 day. The tape narrows and loosens (decreasing of quantity of lymphocyties) in distal direct. In ventral direct from head of pancreas the lymphoid tape is discovered only in lumen of left mesenteric lymphatic trunk. Right mesenteric lymphatic trunk remains before head of pancreas by means of screening of wide cranial mesenteric vein. In the fetuses of 20-21 days this lymphoid tape is deformed (on sections it has crimped shape or consists of fragments with different sizes and shape) under pressure of neighbouring organs or in result twisting of root of mesentery. In the fetus of 21 day and new-born rat the tape is divided on the separate MLN with oval, round and bean´s shape in connection with thickening of their capsules and accumulation of lymphocyties in their parenchyma. I didn´t find MLN with tape form, but saw solid chain of paracolic MLN before head of pancreas. The central and possibly peripheral MLN lie along and about mesenteric lymphatic trunk, but MLN never interrupt it.

The work was submitted to international scientific conference «Fundamental and applied research in medicine», France (Paris), 15–22 October 2011, came to the editorial office on 05.09.2011.