included mandatory animal surgeries to acquire the skills of working with living tissues. At the department of anatomy student should get the skill of preparation on a corpse material, which is impossible to fully obtain when using replicas and simulators. Unfortunately, the department is experiencing an acute deficiency in the receipt of cadaveric material. Last years there were no new corpses. So now for educational purposes we have only 2 corpses: one «exam», inaccessible to students and, therefore, sufficiently preserved, and the second, at which deals up to 500 students per year. This corpse quickly loses important anatomical formations, so it constantly conducts independent work of students. Some things are better with the preparation of the limbs. To carry out intestinal seams we have to buy intestines of animals in the market. In connection with the lack of cadaveric material to practice practical skills on surgical surgery at the department was created a scientific and practical students association. There students can practice at animal material how to develop skills of ownership Surgical instruments, the technique of imposing intestinal seams, vascular seams, joints of nerves and tendons, heart and parenchymatous organs. Thus, from 3 main types of educational activity at the department, such as topographical anatomy teaching on the corpse material, surgical operations on corpses and and surgical operations on animals we only perform the first. In the absence of corpse material for a number of years are not only students, but also young teachers have no skills of preparation. From our point of view, to improve the quality of students' training, it is necessary to solve the issue of supply of corpse material and operations on animals at the departments of anatomical profile.

# EFFECT OF ALPHA LIPOIC ACID ON RECOVERY OF FUNCTION AFTER DELAY REPAIR OF THE SCIATIC NERVE

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Key words: lipoic acid, peripheral nerve, delay repair

**Background.** Contrary to experimental studies routin clinical studies peripheral nerve cut does not performed immediately after injury. Therefore there is a delay for reconstruction of the peripheral nerves.

**Aim.** In the present study we aimed to study effect of lipoic acid treatment in delay repair model of peripheral nerve to understand how axonal pathfinding and functional recovery will be affected.

Material and Methods. For this purpose, a total number of 70 Wistar rats were used for this purpose and divided into seven groups Grup 1 (Control), Group 2 (Sham), Group 3 (Primary repair),

Group 4 (Delay repair), Group 5 (Primary repair+LA), Group 6 (Delay repair+LA) ve Group 7 (Delay repair+delay LA treatment). Animals which treated with alpa lipoic acid were given 50 mg/kg/day dose of alpha lipoic acid.

Results and Discussion. Sciatic nerve regeneration was evaluated by walking track analysis, pinch test, light and electron microscopy and antioxidant effect of Alpha lipoic acid (+) was evaluated by biochemical analysis. We found that there was a beneficial effect of lipoic acit treatment on sciatic nerve after delay repait. However, this beneficial effect has been affected from structure of the sciatic nerve which detoiriated due to delay repair.

**Conclusions.** We think that our study will add valuable knowledge to the literature on the understanding of the nerve regeneration.

# PECULIARITIES OF THE PANCREATIC ARTERIES ANASTOMOSES FORMATION

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**Key words:** pancreas, blood supply, pancreatic arteries, anastomoses

**Aim.** The study was designed to establish anatomical features of the pancreatic arteries anastomoses formation.

**Material and Methods.** We examined 105 macro-preparations of the pancreatic arteries using angiography.

Results and Discussion. 88% of cases showed anterior vertical pancreaticoduodenal anastomosis between the anterior superior pancreaticoduodenal artery and pancreaticoduodenal or its anterior branch. In 58.5% of cases we observed posterior anastomotic arc or posterior vertical pancreaticoduodenal intersistemic anastomosis which was formed by connections of posterior superior pancreaticoduodenal artery and posterior branches of the inferior pancreaticoduodenal artery or additional inferior pancreatoduodenal artery. As a variant of blood supply to the head of pancreas, a horizontal intra-system anastomosis was found between the anterior and posterior branches of the lower pancreatoduodenal artery. In 44% of cases the pancreatic branch supplying the head and neck of the pancreas formed anastomosis with the right branch of the dorsal pancreatic artery (branch of splenic artery). In 26.7% of cases anastomosis was between the lower pancreatoduodenal arteries and the right branch of the dorsal pancreatic artery. In half of these cases, the right branch of the dorsal pancreatic artery was divided into two branches: the upper and the lower.

**Conclusions.** Presence of anastomoses between branches supplying pancreas has clinical significance for surgery, especially when performing proximal pancreatic resections.

### **VARIANT ANATOMY OF THE CORONARY ARTERIES**

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**Key words:** coronary arteries, heart, anatomy, coronary anastomoses

**Aim.** The study was designed to establish anatomical features of the heart arteries depending on the heart shape and type of the blood supply and to reveal the presence of inter- and intra-arterial coronary anastomoses.

**Material and Methods.** Using cryoprepartion we examined 140 macro-preparations of the adult heart (aged 18–45 years) of both sexes.

Results and Discussion. At the most common right-coronary type (51.4% of cases, p<0.05) of heart blood supply in 83.3% of cases the heart was of dolicho-ventricular shape and in 16.7% of mesoventricular shape (R=0.87); the degree of anastomoses development (both intra-and inter-systemic) was defined as the average. Myocardial bridges were detected in 43.1% of cases of the right-coronary type hearts. Most often (93.5%) of myocardial bridges were located above the anterior interventricular branch of the left coronary artery, and only in 6.5% of cases — over the right coronary artery (p<0.05). At the left-coronary type of blood supply (25.7% of cases) all hearts were brachio-ventricular shape (R=0.87), the degree of anastomoses development was defined as low and myocardial bridges were less common (p<0.05) than in other types (13.9% of cases) and in all cases were located above the anterior interventricular branch of the left coronary artery.

**Conclusions.** The study of the variant anatomy of the coronary arteries is of a great interest because it influences outcomes of the cardiovascular diseases prophylaxis and treatment.

# PECULIARITIES OF THE STRUCTURAL ORGANIZATION OF THE ARTERIAL SUPPLY IN LIVER

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Key words: blood supply, liver, MCT, pancreatic arteries

**Aim.** The aim of the study was to establish general patterns and individual anatomical variability of the hepatic arterial supply.

**Material and Methods.** 150 multispiral computed tomography scans were examined.

Results and Discussion. Our study revealed new variants and features of the structural organization of the hepatic arterial supply: a) a significant amount (25.2%) of additional arteries in the right lobe, in the left lobe -4.7%, both lobes -0.7%; b) trifurcation of the proper hepatic artery in the hilus of liver: in addition to the right and left branches, there was an artery to the quadrate lobe of liver, from which in turn departed a branch to the lesser curvature of the stomach; c) the length of the common hepatic artery depends on the shape of the duodenum: short artery (5.2±0.37 mm) — in its vertical form (p<0.0001); long (27 $\pm$ 0.3 mm) — in horizontal (p<0.0001); intermediate length  $(7.1\pm0.3 \text{ mm})$  in horseshoe-shaped (p<0.0001) form; d) the first hepatic segment is the most variable depending on the number of arteries (from 4 to 5 arteries in 19.2%) (p<0.05).

**Conclusions.** Presence of the intra and intersistemic anastomoses of pancreatic arteries influences the outcome after surgical treatment of pancreatic diseases and should be carefully studied during preoperative examination.

MORPHOLOGICAL VARIANTS OF MENISCUS OF KNEE JOINT AND ITS CLINICAL IMPLICATIONS, AN AUTOPSY STUDY

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Key words: autopsy, incidence, knee joint, meniscus

**Aim.** The objective of the present study was to study the various shapes of medial and lateral menisci of human knee joint and to determine the prevalence of discoid lateral meniscus in Indian population.

**Material and Methods.** The present study included 25 human bodies, which were available at the medico legal autopsy in a government hospital in India. Among them 10 were male and 15 were females. There were 50 knee joints (25 right sided and 25 left sided) being studied, which included 50 medial menisci and 50 lateral menisci. Totally 100 menisci were studied.

**Results and Discussion.** Among the medial meniscus, 34 (68%) were resembling 'sided v' shape, 7 (14%) had 'crescent' shape, 4 had sickle shape (8%), 'C' shape was observed in 3 cases (6%) and 2 were having 'sided U' shape (4%). The present study observed that 29 lateral menisci were having incom-