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Abstract Book

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A histochemical investigation of different composition of TSH cells in adenoypophysis of female and male rats

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The aim of the present study was to investigate histochemically the localization of TSH cells and the number of TSH cells in adenoypophysis of ovariectomized adult females, intact females at estrous and diestrous phase of sexual cycles, and castrated and noncastrated adult male rats. Thyroid stimulant hormone (TSH) cells, distributed throughout the pars distalis in all groups, were observed more frequent in areas near to the pars intermedia than other regions. The cells were round, ovoid, stellar shaped and had contacts with sinusoids. Their nuclei were large and round in shape. The cells were found always single or occasionally in groups of double and triple. The number of TSH cells was higher in estrous than diestrous phase in intact rats. In adenoypophysis of ovariectomized rats their numbers were less than that of intact in estrous but higher than that of found in diestrous phases. Furthermore, the numbers of TSH cells in intact females during estrous phase was higher than those found in intact and castrated male rats. On the other hand, castration reduced the number of TSH cells while ovariectomy did no effect in this respect.

Key words: TSH cell, Histochemistry, Adenoypophysis, Rat

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Distribution of collagen types I, III and elastin in leg muscles of the growing rat

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The distributions of major fibrillar elements (collagen types I, III and elastin) in the connective tissue of the gastrocnemius and plantaris muscles were studied by immunohistochemistry in rats. From neonatal (0 day) to 8 weeks of age, the size of skeletal muscles increased and intramuscular connective tissue developed. The epimysium of neonatal rats contained a considerable amount of collagen types I, III and some elastin. The proportions of these components in the epimysium remained almost unchanged during development. In the perimysium, the amounts of collagen type I and elastin were slight at 0 day, transiently increased around 2 weeks and decreased thereafter. Collagen type III within perimysium was scarce in the neonatal stage; however, it became increasingly abundant from 1 week. The endomysium showed only slight amounts of collagen type I and elastin during postnatal growth, while the amount of collagen type III gradually increased after 2 weeks. The intramuscular tendon consistently showed intense reactivity for collagen type I and weak staining for elastin. The amount of collagen type III decreased and the localization became restricted to the surface of intramuscular tendon after 1 week. This study clearly demonstrated that the distributions of collagen types I and III significantly change during muscle development. The increase in collagen type III in the

perimysium and endomysium, and its decrease in the intramuscular tendon probably reflect the main functional demands imposed on these connective tissues, i.e., shear forces in the former two and tensile loading in the latter.

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Morphological features, classifications and frequencies of the synovial folds of knee joint in fetuses

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Morphological features of the intraarticular synovial folds of knee joint are important during arthroscopy, and some of those are considered as playing role on plica syndrome. In this study, infrapatellar, mediopatellar, suprapatellar and lateral folds were examined and classified on 30 fetus knees (12 male, 18 female, 20-34 weeks of age) which were not come into any structural change by trauma or strenuous exercise. Infrapatellar fold was classified in 6 subgroups. In 30% of the knees, infrapatellar fold constituted an important barrier between the right and left meniscofemoral spaces. Their importance during the arthroscopic approach from one side to the other, and in evaluation of the anterior cruciate ligament was emphasized. Mediopatellar fold, which is responsible for most of the plica syndromes, was evaluated in 9 subgroups. In 10% of the knees, it was a large band extending downward and squeezed between the articular surfaces of patella and the medial condyle of the femur. This type was considered as a risk for plica syndrome. Lateral fold, which is known as very rare, was classified in 8 subgroups. Surprisingly, it was encountered in 10% of the knees as a large band. Suprapatellar fold was classified in 11 subgroups. In 33% of the knees, it was in complete or perforated form and separated the suprapatellar bursa from the main articular space almost thoroughly. In 13% of the mediopatellar folds and in 50% of the lateral folds, it was continued with the suprapatellar fold.

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Long-term morpho-functional effects of opioids in pancreas

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Endogenic opioids play an important role in reparation and regeneration, and in particular, in mechanisms of healing defects of mucous membrane of gastro-intestinal tract and pancreas-protective effect of enkephalins on pancreatitis and other pathological states of pancreas.

In our experiments we have shown that leu-enkephalin analog dalargin has a strong impact on dynamics of pathomorphological state of experimental acute pancreatitis. These effects were the following: stimulated forming of granulation tissue with a large quantity of dilated blood vessels and tubular-epithelial regenerators. Conjunctive-tissue cells and microvessels provide growth of granulation tissue; and reconstruction of glandular structures needs epithelial cell proliferation and migration of epithelial cells for re-epithelization of tubular lumps. All these