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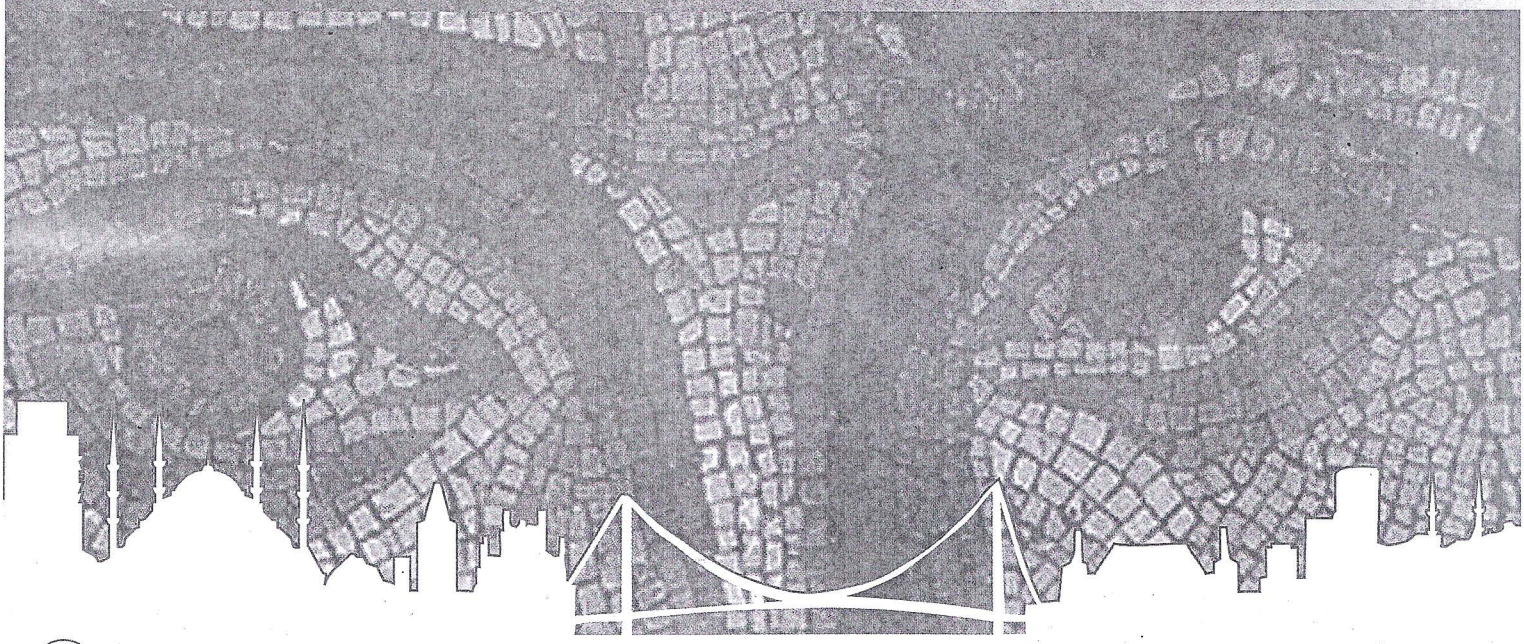

TÜBİTAK

Abstracts Book

Surgical Radiologic Anatomy

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visceral branches. We examined diameter of the coeliac, right and left renal and superior mesenteric arteries and their relationship to the diameter of the upper (0,.5 cm above from coeliac trunk) and lower (2.5 cm above from aortic bifurcation) abdominal aorta. These values were compared between the genders. Thirty adult (25 male and 7 female) abdominal aorta were examined in the Istanbul Forensic Medicine Institute morgue and Kocaeli University School of Medicine Department of Anatomy. The abdominal aorta was dissected above the coeliac trunk and below the aortic bifurcation. Measurements carried out with the use of an electronic caliper. The mean age of cases was (male: 37.80, female: 43.14) 38.96 years. The mean upper and lower abdominal aortic diameter in the males were 15.02±0.44 mm and 11.79±0.38 mm respectively. The mean upper and lower aortic diameter in the females were 12.66±2.26 mm and 11.28±0.71 mm, respectively. In males, diameter of the coeliac artery was correlated well with height (p=0.049) and there was a positive correlation between the diameter of the left renal artery and the diameter of the coeliac artery (p=0.042). In addition, significant correlations, were found between upper and lower aortic diameter and age in males (p=0.002 and p=0.005 respectively). The absolute diameters of the whole vessels were correlated positively with each other in both genders. However no significant correlations were found between aortic diameters and age in women. Understanding of the normal aortic diameter and its relation to age, sex and diameter of its visceral branches is important for determine the relevance of cardiovascular disease risk factors.

PO-25. COMPARATIVE STUDY OF THE INFLUENCE OF EGF AND A-FGF ON THE DEVELOPMENT OF SMALL MURINE INTESTINE

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Objectives: Postnatal development and maturation of gastrointestinal tract of mammals is influenced by supply of maternal milk. Among the substances present in colostrum and milk epidermal growth factor (EGF) has major role in gut maturation and development. Other substances in milk are the family of fibroblast growth factors (FGFs) that have regulatory, morphological and endocrine function. The aim of our study was to trace the morphological changes occurring in the gut of newborn mice and to study the expression of hydrolytic enzymes (alkaline phosphatase and DDP IV) in the small intestine in organ culture in presence of EGF or a-FGF.

Methods: Cultured bowel specimens were subject to scanning and transmission electron microscopy and to enzyme histochemistry.

Results: Electron micrographs showed well shaped enterocytes at the villi and well defined tight junctions in the gut explants treated with EGF or with a-FGF. Activity of alkaline phosphatase and DPP IV for explants treated with EGF was increased. For specimens treated with a-FGF activity of alkaline phosphatase again was increased but for DPP IV we found decreased levels of the enzyme.

Conclusions: Both EGF and a-FGF had beneficial effect and affected maturation and development of the neonatal murine small intestine. Morphological changes (different length and shape of the villi) as result of the influence of growth factors were observed. Enzyme histochemistry approach showed correlation between the enzyme activity and the growth factors added.

PO-26. CLASSIFICATION OF AXILLARY ARCH ACCORDING TO CONFIGURATION AND ITS FREQUENCY IN FETUSES

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"Axillopectoral arch", which is known as remnant of panniculus carnosus is also named as "Langer's muscle" or "axillopectoral muscle". It usually originates from the lateral margin of latissimus dorsi muscle and inserts to the humeral insertion of the pectoralis major muscle or coracoid process. Axillopectoral arch can make compression on the axillary neurovascular bundle and can cause difficulty for regional surgery like axillary lymphadenectomy. In this study, the frequency, morphologic properties and innervation pattern of the axillopectoral arches are investigated in 50 fetuses (M:20, F:30); whose ages are varying between 16-38 weeks (mean: 23.3±5.3) in the Anatomy Laboratory of Mersin University. The arch was found in 11 of the fetuses and in 3 of 11, it was bilateral. Among all sides 7 of 14 arches were in the right and 7 were in the left side. Eight of 14 were muscular and 6 were musculotendinous. With regard to Testut's classification, 6 of them were in complete type, 6 were incomplete and 2 were concordant with both of the types. In this study three patterns were defined considering the shapes of the arches. With regard to this classification 7, 2 and 5 of the arches were concordant with type 1, type 2 and type 3 respectively. Variative muscles derived from the anterior wall of thorax were contributing to arch in three cases. Two of them were type 1 and one was type 2. All of the arches were supplied by thoracodorsal nerve. Lateral and medial pectoral nerves supplied the contributing fibers, when they derive from pectoral region. It is suggested

that different types of the axillary arches (and fibers contributing to them) are formed due to the various grades of disappearance of the panniculus carnosus, which is found in mammalians like cats and dogs and expected to disappear in humans in evolutionary period.

PO-27. NEUROANATOMY OF CERVICAL SYMPATHETIC TRUNK: A CADAVERIC STUDY

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To reduce the risk of iatrogenic injury to sympathetic chain during anterior and anterolateral approaches to the cervical spine, its location has to be well defined and known by surgeons. We analyzed the course of sympathetic chain and its ganglia from C7 up to its entry into the cranial base and its relationship mainly with the longus colli (LC). Formalin fixed 20 human cadavers were dissected under operating microscope. Measurement of the dimensions of the ganglia, distance of the trunk to the LC, and the angles identifying the course of the chain were performed. Superior and inferior cervical/cervicothoracic ganglion were observed in all specimens, the middle cervical ganglion was observed in 48% of the specimens. The middle ganglion consisted of two ganglia in 10% of the dissected sides. Forty percent of the inferior cervical/ cervicothoracic ganglion was at the C7 level, 25% was at C7-Th1 disc level, and 35% was at Th1 level. Vertebral ganglion was detected in only 8% of the specimens. The course of the sympathetic trunk converges medially descending from upper cervical levels to the lower levels. Anterior surgical approach to the cervical spine is a commonly used procedure. Although Horner syndrome due to sympathetic injury is not a common sequence of cervical operations, our findings support the current few reports on the subject and should be useful to any surgeon who operates in the cervical region to avoid this uncommon complication.

PO-28. PARAVERTEBRAL BLOCK IN INGUINAL HERNIA OPERATIONS: TWO SEGMENTS OR FOUR SEGMENTS?

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Purpose: In this study, we compare the paravertebral block (PVB) of the T10 and L1 segments and multiple segment PVB accepted for anesthetic and analgesic effects in inguinal hernia operations.
Methods: Anatomical study was performed on three cadavers. 15 ml methylene blue solution was injected at the T10 level and then additional 5 ml dye injection at L1 level. Fifty patients for whom inguinal hernia operations were planned were included in the study. Patients in Group 1 (n=25) underwent PVB through two segments at the T10, L1 vertebrae levels on the same side as the hernia, while patients in Group 2 (n=25) underwent PVB through four segments at T10, T11, T12, and L1 on the same side as the hernia. Peri-operative propofol/remifentanil consumption, surgery start time, time to perform the block, duration of sensory block, postoperative VAS scores and complications were evaluated.
Results: Any passage down to the T12 level was not observed after injection at the T10 level and also only after additional 5 ml dye injection at the L1 level, the genitofemoral, ilioinguinal, iliohypogastric and lateral femoral cutaneous nerves were stained with dye in cadavers. The periods for blockage application were 5±1 minutes in Group 1 and 16±4 minutes in Group 2; this time difference was found to be significant ($p<0.001$). The surgery start time was 25±3 minutes in group 1 and 27±6 in group 2 ($p=0.234$). In both groups, propofol and remifentanil were used in similar quantities during the peri-operative period. In postoperative pain treatment, use of paracetamol tablets was similar in both groups ($p>0.05$). While none of the patients in group 1 displayed motor block or contralateral spread, two patients in group 2 displayed contralateral spread, and motor block was observed in one patient. In Group 1, 23 (92%) patients, and in Group 2, 24 (96%) patients were satisfied with the method ($p>0.05$).
Conclusions: Two-segment PVB can be an alternative to four-segment PVB in inguinal hernia operations. Decreasing the number of injections required in this technique may further increase patient comfort and decrease complications.

PO-29. PERFORATING ARTERIES OF THE MEDIAL THIGH REGION: AN ANATOMICAL STUDY

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