

fresh brain in the region anterior to the decussating anterior commissure and then underwent usual procedure of Golgi staining. Under the light microscope and Image J freeware as well as by Neurolucida system. Results. The THC application affected total dendritic length and, subsequently, number of spines at 10 μ m length in the region of shell but not in the core of the accumbens nucleus. The average number of spines was 2.8/10 μ m (8.4/10 μ m in controls), while total dendritic length was also affected and significantly reduced. Conclusion. Tetrahydrocannabinol affects the morphology of the shell neurons of the accumbens nucleus of the rat brain.

THE MORPHOLOGICAL STATUS OF THE CEREBRAL CORTEX, LIVER, GUT MUCOSA AND SPLEEN IN CASES OF SUDDEN INFANT DEATH SYNDROME VICTIMS

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Background: The etiology of SIDS is still unknown. We analyzed the structural changes in some internal organs of the SIDS victims. Materials and Methods: Samples from 8 SIDS victims 2-5 months of age and 7 aged – matched control infants were compared. Using immunohistochemical methods we examined the distribution of CD235a positive erythroid precursor cells, CD68 and iNOS positive macrophages, CD20 and CD21 positive B lymphocytes in the liver, gut mucosa and spleen of SIDS cases and controls. Neocortical areas were investigated using glial fibrillary acidic protein (GFAP) immunohistochemistry. The mean diameter of splenic follicles and the cross – sectional surface area (CSSA) of Kupffer cells was also measured. Results: SIDS victims produced more CD21 positive B cells in the marginal zone of the spleen. Likewise, there was an increase in the mean diameter of the germinal centers of the spleen in SIDS victims in comparison with controls. The number of iNOS expressing intestinal macrophages increased in SIDS cases, as well as the CSSA of Kupffer cells of the liver parenchyma and the number of CD20 positive B lymphocytes in the portal tracts of the liver. Our study reveals persistence of hematopoietic activity in the liver and increased expression of iNOS in portal tract macrophages in cases of SIDS. Morphological changes in neurons and astrocytes of neocortex of SIDS victims were not observed. Conclusion: We hypothesize, that SIDS might have an immunological basis (e.g. a genetically determined inability of the immune system to eliminate an infectious agent). As a result, chronic immune response leads to NO overload, dilatation of the blood vessels and toxic shock.

CLINICAL ANATOMY OF THE UPPER ABDOMINAL REGION'S VENOUS ANATOMY, WITH SPECIAL REGARD TO THE PORTAL VENOUS DRAINAGE OF THE PANCREAS

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Introduction: There are no literary data on the variants of the venous drainage of the pancreas. Awareness of the precise anatomy is critical during the surgical interventions in the especially challenging pancreatic region. Methods: We examined 22 corrosion casts of human abdominal organ complexes. The resin was injected through the proximal end of the abdominal aorta and simultaneously through the portal vein (Pv) with differently colored resin. In two cases only the portal system was injected. Results: We found the superior mesenteric vein (SMv) to reach the splenic vein (Sv) with a right and a left trunk in 5 cases. The inferior mesenteric vein (IMv) drains into the SMv in 13 cases and into the Sv in 9. The left gastric vein (LGv) opens into the SMv in 3 casts and into the IMv in 2 cases. „Normal anatomy” of the gastroduodenal trunk (GDT) was found in 12 cases. In six cases the venous trunk was missing. In 3 casts it was formed from the convergence of RGAev and ASPDv, in 1 case six vessels joined in the trunk. Venous arches around the head of the pancreas were observed only in nine cases. ASPDv drains into the GDT in 13 cases; into the SMv and the superior right colic vein (SRCv) in 3-3 casts; into the Pv in 2 and into the RGAev in one cast. In the most cases the posterior superior pancreaticoduodenal vein (17 casts) entered the Pv. It drains into the SMv (2 cases) and the RGAev (2 cases), in 1 cast into the SRCv. Conclusions: We made a systematic analysis of the portal venous system of the pancreatic region. We found a variation of the formation of the GDT and two other variants of the LGv that have not been published in the international literature.

THE ARTERIAL BLOOD SUPPLY OF THE PANCREAS – SURGICAL ANATOMICAL STUDY

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Introduction: The pancreatic surgery emerged at the beginning of the twentieth century, and the surgical techniques continuously improve. The more sophisticated surgical approaches and diagnostic methods applied the more knowledge of the arterial variations is needed. We aimed to investigate and analyze the arterial variations of the pancreatic region in the Hungarian population taking into account the embryologic background.

Materials and methods: We examined 48 corrosion casts of human abdominal organ complexes. The resin was injected through the abdominal aorta and after its hardening the parenchyma was corroded. Thereafter, using the most widely accepted nomenclature we analyzed them macroscopically. Digital photographs, CT images were taken. Results: The anterior superior pancreaticoduodenal artery (ASPDa) arose from the