SUDDEN INFANT DEATH SYNDROM (SIDS). SPESIAL FEATURES OF A PATHOMORPHOLOGICAL STUDY

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SIDS - one of the most dramatic and most mysterious problems in contemporary pediatrics. Purpose of the study: to study the special features of pathomorphological changes in organs and systems of children, who died from SIDS.

Materials and the methods of the research: for solving the problems, 63 analysis was carried out, total babies, who died from SIDS in the last ten years, based on pathomorphological studies (in five regions of children, died from SIDS in last two years, took part in this materials research).

With the external inspection of those who died from SIDS was noted, that in the children was absent signs of life-threatening states. In the overwhelming majority of the cases edema and swelling of brain was revealed. In the brain stem gliosis was observed. In the majority of the cases a large quantity of reactive astrocytes was observed which indicate the disturbance of blood-brain barrier. The decrease of the inner granular layer of the cerebellum was the fact that there was delay in rates of maturing of brain, as literature data indicate. Special important feature was the development of the hypertrophy of myocardium in right ventricle in the victims of SIDS. Microscopically discovered was minimally expressed interstitial edema of myocardium. This indicated the sharp disturbance of circulation in the myocardium of the died children. The expressed plethora of the liver and the microscopic signs of sharp dystrophic changes in the hepatocytes was also noted. This characteristic can be caused by the presence of extramedullar hemogenesis. In the kidneys - sharp dystrophic changes in the epithelium of nephritic ducts. The signs of the immatured nephritic corpuscles was observed. In spleen sometimes can be seen follicles without fermentation in the center. In the adrenal glands - signs of compensating- hyperplastic processes in the form of adenomatous growths in the definitive layer with a large quantity of microcrista. Giant cells discovered in the fetal crust. It is possible to assume about the general hypoplasia of the adrenal glands. The characteristic pathomorphological findings, which are described in the children, who died from SIDS, can be seen large size of thymus. Microscopic examination revealed the signs of the karyorrhexis of lymphocytes and macrophages. In the crust - showed the "celestial sphere". The subsequent findings indicated the presence of the accidental transformation of the thymus.

Conclusions: by analyzing the data of pathomorphological studies in the children who died from SIDS it is possible to note the signs, which is pathognomonic in this syndrome. They include: hyperplasia of the muscular layer of the medium and small diameter vessels in the lesser blood circulation system and the hypertrophy of muscles of the right ventricle of heart; plural petechiae under the serous layer (epicardium, pleura, the capsule of the thymus); gliosis of the brain stem and chromaffin tissue of the adrenal glands. All this pathognomonic syndrome shows the sign of chronic hypoxia.