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PATHOMORPHOLOGICAL FEATURES OF THYMUS IN INTRAUTERINE-INFECTED NEWBORNS WITH BODY HYPOTROPHY

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ABSTRACT

In the work, an analysis of pathomorphological changes in the thymus of infants with extremely low body weight in general hypotrophy of organism (ENMT) developed under conditions of intrauterine infection was carried out. A study group included 77body hypotrophy neonates who had developed in the presence of in utero infection. The main causes of their death were the following conditions: generalized viral and bacterial infection of mixed genesis (n=49 (63,6%)), congenital pneumonia (n=14 (18,2%)), bilateral hemorrhage into the ventricular system of the brain (n=12 (11,4%)), congenital sepsis (n=4 (5,2%)), and visceral malformations (n=10 (13%)). A comparison group consisted of 27body hypotrophy (disorders of blood supply, dystrophy) babies; the main cause of their deaths was asphyxia resulting from acute uteroplacental circulatory disturbances. Transplancentally transmitted infections were notidentified in this group. Thymic structural features in the examined groupswerestudied using a set of current morphological studies. Histological, immunohistochemical, electron microscopicand morphological studies revealed three variants of thymic structural changes: normoplastic, retardant and dysplastic. Anomalies of the shape, ectopia, and hypoplasia of the thymus, impaired corticomedullary differentiation in the lobules, and decreased CD1a, CD3 T-cell expression wereshown to be the morphological signs of dyschronic development of the thymus. The morphological criteria for the retardant and dysplastic types of dyschronicthymic development were determined, which constitute the structural basis of immunodeficiency states in in utero infected ELBW newborn infants

KEYWORDS: *Thymus, Newborns, Hypotrophy, Extremely Low Body Weight, Thymus, Developmental Dyschronia, Dysplasia, Infection, Sepsis.*

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