Diagnostic Pathology

Oral presentation

Hypertrophic obstructive cardiomyopathy of an infant with neuroblastoma: a case report

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The prognosis of neuroblastoma during infancy is not really bad. Prognostic relevant factors are the extent of metastatic sites and the existence of an amplification of the n-myc gene.

In the case of a male infant of only four weeks old, a neuroblastoma of 6 cm in diameter was found in the right adrenal gland (degree 2–3). The fate of this infant, however, depended on a massive hypertrophic obstructive cardiomyopathy, which was diagnosed on his second day of life. Therefore, a resection of muscles of the right ventricular outflow was required. Nevertheless, the child died due to progressive heart failure.

At the autopsy, not only metastasis in both kidneys, in his bone marrow, in his liver and angiosis neuroblastomatosis in his lungs were found, but also an extended string of metastasis in his heart, precisely in his right ventricle and his septum. Close to it, there were necroses of different ages and calcification of the myocard. There was no amplification of the n-myc gene (Ogahospital Stuttgart).

By this case, we want to show the possibility of a complication of a neuroblastoma caused by the development of a secondary hypertrophic obstructive cardiomyopathy.

The reasons for this cardiomyopathy are more likely to be seen by the existence of extended metastasis in the heart with the local production and secretion of catecholamine, together with the systematic effect of the catecholamine. Postpartal the angiosis neuroblastomatosis of the lungs could be additionally important.