# *VII. Mother and Child. Pediatrics Section.*

## 1. ADRENAL TUMORS IN CHILDREN

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**Introduction.** Adrenal tumors in children are generally rare. It can be one person from 1,000.000. The most frequent type of adrenal tumor in children is neuroblastoma, with an incidence of 58 from 1,000,000 newborns of registered cases per year, about 20% of neonatal cancers, and about 8% of all childhood cancers. On the second place among tumors of the adrenal gland in children are adrenocortical tumors, which could be developed from latent congenital adrenal hyperplasia. Adrenocortical cancer accounts for 0.5% of all malignancies in children. Pheochromocytomas, which are located in the adrenal gland in children, are rare (10% of all Pheochromocytomas), but in more than 10% of cases, it is bilateral and hereditary. Generally, there aren't known concrete causes of these tumors, thus isn't a known method to reduce the risk of development of adrenal tumors.

**Aim of study.** Studying the clinical, paraclinical particularities and the results of surgical and pharmaceutical treatment for all types of Adrenal Tumors in children, in order to highlight the most common clinical features and the best option of treatment depending on the type of Adrenal Tumor.

**Methods and materials.** This study included 13 patients aged 4-11 years with Neuroblastomas and 1 patient with Ganglioneuroblastoma, who were treated in 2018-2021 in the Department of Pediatric Oncology of the Oncological Institute of Moldova. Also the study included 6 patients aged 0-18 years with Neuroblastomas and Pheochromocytomas who were treated in 2019-2021 in the Institute of Mother and Child Health Care.

**Results.** Patients by gender distribution: 9 girls (45%) and 11 boys (55%). Clinically, the most common of all patients was a palpable mass in the abdomen hard and unmovable. Other clinical features include abdominal enlargement from hepatomegaly due to liver metastases - 1 patient (5%), insignificant weakness 2 patients (10%), and asymptomatic - 17 patients (85%). Of all the patients, only 4 of them have no metastasis (20%), and 16 patients have metastasis in regional lymph nodes, liver, or bones (80%). The diagnosis of adrenal mass was established postnatal in 100% of cases, and after the biopsy: 1 patient has Ganglioneuroblastoma (5%), 1 patient has Pheochromocytoma (5%), and 18 patients have Neuroblastomas (90%). Four patients received surgical treatment of total tumor excision, and one patient with a subtotal ablation. These patients underwent combined treatment and the rest of the patients - adjuvant therapy with Etoposide 30 mg + Carboplatin 150 mg, Doxorubicin 9 mg + Carboplatin 150 mg + Cyclophosphamide 300 mg or Etoposide 30 mg + Cyclophosphamide 300 mg.

**Conclusion.** Neuroblastoma is the most common tumor from all types of adrenal tumors in children. The treatment is adjusted according to the type of tumor, stage, and eligibility criteria. The prognosis of ganglioneuroblastoma is relatively good, of the Pheochromocytoma also good with the surgical treatment, and the prognosis for Neuroblastoma is reserved. The results and prognosis can be better after combined therapy but on patients without metastasis and major laboratory changes.