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abstract

Minimally Invasive Surgery in the Treatment of Children with Parameningeal Rhabdomyosarcoma: Experience of the D. Rogachev National Medical Research Center of Pediatric Hematology, Oncology and Immunology

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Minimally Invasive Surgery in the Treatment of Children with Parameningeal Rhabdomyosarcoma: Experience of the D. Rogachev National Medical Research Center of Pediatric Hematology, Oncology and Immunology

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Introduction: Rhabdomyosarcoma (RMS) is a malignant tumor of mesenchymal origin and is the most common type of soft tissue sarcoma in children, accounting for 3-4% of all cases of malignant neoplasms (MN) in childhood. Localization of the primary lesion in the parameningeal region or parameningeal spread of tumor masses from other localizations in the head and neck region account for about 20% of all RMS cases in children and 50% of cases among tumor localizations in the head and neck region.

Severe complications after extensive resections in children with PM localization of RMS often lead to disruption of the timing of systemic chemotherapy, and thus directly negatively affect the prognosis of the disease, which emphasizes the importance of using transnasal endoscopic surgery.

Methodology: The study included 36 patients aged 1 to 17 years, diagnosed with RMS, who received special treatment from 2012 to 2024. All the patients received drug treatment according to the protocols CWS-2009 and CWS-2014. In all cases, minimally invasive endoscopic resection (MIER) was performed.

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Results: During the observation period from 17 months to 6 years, all patients are alive. The volume of surgical interventions performed was distributed as follows: R0 resection was performed in 20 cases (56%), R1 in 12 cases (33%), and R2 in 4 cases (11%). 27(75%) patients are alive without signs of disease recurrence. 9 (25%) patients had relapse/progression of the disease.

Conclusion: The introduction of minimally invasive surgery technology is of key importance in the treatment of patients with RMS of PM localization. In relation to PM localization, the introduction of minimally invasive surgery will not only improve and expand the possibilities of surgical treatment in children, but also achieve better results in terms of cosmetic defects, recovery rate and, as a result, improvement in overall and event-free survival rates.