

SV6: THORACIC AND ABDOMINAL ENDOSCOPIC APPROACH IN PEDIATRIC SOLID ONCOLOGY

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Background At the end of the last century, endoscopic operations have become the gold standard in the treatment of surgical pathology in children. Currently, they are increasingly being used in pediatric Oncology, both at the diagnostic stage and surgical management.

Materials and methods Since February 2012 in National Research Center of Pediatric Hematology, Oncology and Immunology in Surgery Department 163 endoscopic operations was performed to remove the solid tumor. From the specified number of operations, 91 were by laparoscopic and 72 — thoracoscopic approach. Laparoscopic excision of tumors were performed in children with neurogenic tumors (60), benign tumors and cysts of the ovaries (9), hematoma with calcification of the adrenal gland (3), kidney tumors (3), pseudopapillary tumor of the pancreas (2) and others (9). Thoracoscopic incision of tumors was carried out with neurogenic tumors (49), lung tumors (12), bronchial cysts (3), esophagus cysts (3), tumors of thymus (2) and others solid tumors (5). Minimal age of patient was 1 month, maximal — 19 years. The ratio of boys to girls stood at 1:1,2. A three or four throacars access was used. The tumor stood out with the use of bipolar or ultrasound coagulation. After removal of the tumor, it was placed in the endoscope container and removed from the cavity through an enlarged throacar hole.

Results The surgical part of the operation ranged from 20 minutes to 4.5 hours and depended on the size of the tumor and surgical risks (involving of large vessels, nerves end so on).

The biggest volume of intraoperative bleeding was 300 ml in patient weight 20 kg (18% of blood volume), the same child had a biggest tumor, that we have ever removed by endoscopic approach — 76x57x130 mm (275 ml).

In 19 cases resorted to conversions (6 — a large amount of tumor, 6 — profuse bleeding, 5 — adhesive process, 2 — not founded metastases in lungs). In the postoperative period in 7 children was chylothorax/hemoperitoneum — needed additional therapy and with positive dynamic.

At dynamic observation revealed 2 recurrence and open re-operations were performed.

Conclusions Endoscopic surgery in the treatment of children with solid tumors, has a number of advantages over open surgery, allows achieving good results and is an integral part of complex therapy.

Key words endoscopic approach, thoracoscopy in children, laparoscopy in children, pediatric solid oncology