

SV16: THE RESULTS OF MINIMALLY INVASIVE SURGERY IN CHILDREN WITH ABDOMINAL NEUROBLASTOMA

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Background One of the promising areas in pediatric oncology and pediatric surgery is MIS in children with abdominal neuroblastoma. We investigated and comparing the results of laparoscopy and laparotomy treatment.

Materials and methods Radical surgical treatment was performed in 224 patients with thoracoabdominal neuroblastoma (01.2012–10.2016). Laparoscopic tumorectomy was performed in 39(17.4%). Patients were treated according to NB2004 protocol. Image-defined risk factors (IDRF) and size of the tumor were used to select patients. To compare the effects of laparotomy with those of laparoscopy in patients with neuroblastomas without IDRFs, the following items were retrospectively compared: largest tumor dimension, volume of blood loss, time required to initiate postoperative feeding, locoregional recurrence rate, survival, etc.

Results 31 patients without IDRFs (20 at low-medium risk and 11 at high risk) underwent laparotomy, and 39 patients without IDRFs (31 low-medium risk and 8 at high risk) underwent laparoscopy. Median age was 14 months (1 – 69) after laparotomy and 11 months (3–62) after laparoscopy ($p=0.68$). Median duration of surgery was 120 (70–200) and 135 (50–300) min in the laparotomy and laparoscopy groups($p=0.15$). Median postoperative time required for resuming meal consumption was significantly longer in the laparotomy (2 days; 1–4) group than that in the laparoscopy group (0 days;0–10; $p=0,000005$). Median blood loss was significantly higher in the laparotomy group (20 ml;0–200) than in the laparoscopy group (0 ml; 0-100; $p=0,01$). Median time of drainage removal was higher in the laparotomy group(4 ml; 0–8) than in the laparoscopy group(2 days;0–13; $p=0,001$). Median time of analgesia was higher in the laparotomy group(4 days; 2–6) than in the laparoscopy group(2 days; 1–5; $p=0,000002$). Median time of antibacterial therapy was higher in the laparotomy group(6 days; 3–11) than in the laparoscopy group(5 days; 1–10; $p=0,000002$). We have not differences in intraoperative and postoperative complications, local recurrence and mortality in postoperative period. Median follow-up time was 36 months.

Conclusions MIS in children with abdominal neuroblastoma is an effective technique which enables to carry out radical surgery in the absence of contraindications and IDRF and provides minimally invasiveness and good cosmetic effect without worsening oncological prognosis.