

After that, the compression bandage was applied with a gauze or elastic bandage spiral, from the penis balanus to the base. Stitches in the postoperative period were not removed in view of lysis of the suture material within 2-3 months.

### RESULTS OF THE STUDY

27 urethroplasties were performed by Snodgrass. The average age of boys was 4 years. Age of 2 years is considered to be preferred age for urethroplasty, because in this case the penis becomes larger and the children underwent easier inpatient care. The duration of the operation was 55 minutes on average. The elastic bandage is applied for 5 days. The duration of the catheterization of the bladder is 10 days. Antibiotic therapy in the postoperative period was performed with the use of broad-spectrum antibiotics. Antibiotic treatment lasts until the catheter is removed, with the first injection of an antibiotic performed before the operation for the purpose of perioperative antibiotic prophylaxis. A week later uroseptics were prescribed for 10-14 days. The average duration of inpatient care after the operation is 12 days (dressings, physiotherapy). Complications took place in two patients (7.4%) in the form of a fistula urethra (1 case) and meatostenosis (1 case). These children underwent operations on suturing the fistula and meatotomy, dissection of external urethral opening. In the future the complications were not observed.

### CONCLUSIONS

1. The method of one-stage correction of hypospadias by Snodgrass allows to eliminate malformation in the early periods practically at any distal and

average form of the defect.

2. Correction of hypospadias with the help of urethroplasty by Snodgrass causes postoperative complications with a low frequency (7.4%).

3. The effective method for postoperative urine diversion is transurethral urine derivation.

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## LONG-TERM RESULTS OF TREATMENT OF SACRO-COCCYX AREA TERATOMAS

### ABSTRACT

The article presents the results of treatment of sacro-coccygeal teratomas in newborns in the period from 2001 to 2015. In the majority of the newborns the pathology was detected prenatally. The level of AFP in the neonatal period is not a diagnostic criterion of malignancy, but it can serve as a screening method in the postoperative period. In the postoperative period, patients should be observed in a pediatric oncologist at any histological conclusion, as the probability of malignancy and recurrence of the tumor is high thereafter. In 30% of cases there is a malignant course of sacro-coccygeal teratoma.

**Keywords:** teratoma, malignancy.

Teratomas of the sacro-coccygeal area are one of the frequent malformations, which are more often detected in the period of newborn or antenatal. In large teratomas, a prenatal consultation is conducted to determine the mode of

delivery. Teratomas of predominantly retroperitoneal arrangement may appear later with a rectal compression clinic or dysuric symptoms. In most cases, the diagnosis of sacro-coccygeal teratomas does not cause difficulties, as a rule, early

surgical intervention is performed [1, 2]. Further tactics is decided by the results of a histological study of the removed tumor. But the statement of a benign tumor variant does not exclude careful observation of the child, since there are

cases of detection of a recurrent tumor or distant metastases with age.

Objective: to study the long-term results of the treatment of sacro-coccygeal teratomas in newborns.

#### MATERIALS AND METHODS OF RESEARCH

For 15 years (2001-2015), 10 newborns were operated in the surgical department of the Pediatric Center of the Republican Hospital No. 1 of the National Center of Medicine for the teratoma of the sacro-coccygeal area. Newborns entered at the age of 1 - 5 days of life: 9 from the maternity hospitals of Yakutsk, 1 was transported from the district hospital. Upon admission all newborns were carried out ultrasound of the tumor, small pelvis, MRI of the sacro-coccygeal region, and the analysis for the AFP level was taken. 40% of teratomas were cystic, mixed - 40%, a solid structure was detected in 20% of cases. According to the classification, there were variants of type I - 10%, type II - 50%, type III - 40%, type IV - not identified. In 1 case, the teratoma of the sacro-coccygeal area was detected antenatally in a triplet girl, due to the immaturity and low weight of the baby, the tumor was removed at the age of 3 weeks, the rest of the newborns were operated in the first week of life. In 1 case, at the stage of CRH, an atypical location of a moderate-sized teratoma in the gluteal region of the newborn was regarded as a post-injection abscess and an opening of the tumor cavity was carried out. The girl was sent to the Pediatric center by the sanatorium, she was operated on the 3rd day of her life after the post-examination.

#### RESULTS

In all children, the AFP level was elevated and averaged 1500 IU. The operations are performed by sacral transverse access with obligatory tailbone resection. According to urgent indications for the first day of life, a child with a giant teratoma of the sacro-coccygeal area was operated (Fig. 1), the tumor was removed with coccyx resection without technical difficulties, a mature teratoma was histologically established.

Postoperative complications were observed in two cases. In the first case, a submucosal wound of the urethra occurred during the installation of a metallic urethral catheter, and subsequently we refused from such catheterisations. In another case, in the early postoperative period, a fistula of the rectum opened on the postoperative wound, during surgery the wound of the intestine was not established. Patient was imposed a preventive colostomy,

fistula of the rectum closed against a background of conservative measures, after 6 months after the control MRI of the sacro-coccygeal area, the colostomy of the colon was eliminated.

In 1 case, an immature teratoma was histologically detected, the child underwent polychemotherapy, the girl is observed with an oncologist. After the removal of the giant teratoma of the sacro-coccygeal area in a distant period, the patient had a recurrent tumor. The child was observed after the operation: every 6 months the surgeon, oncologist, digital rectal examination, perineal ultrasound and retroperitoneal space were examined. The boy entered the surgical department at the age of 2 years with a clinic of relapsing low intestinal obstruction, a small pelvic tumor, squeezing the rectum, was operated. Histologically a yolk sac tumor was developed, and a course of polychemotherapy with a lethal outcome was transferred.

We represent the clinical case of the teratoma of the sacro-coccygeal area: the girl was operated in the newborn period

for the teratoma of type II, the tumor was removed with coccyx resection, radically, the histological conclusion was a mature teratoma, the AFP level before surgery was moderately elevated, and after surgery the AFP level was stable. The child was observed in the pediatric surgeon, a stationary examination was performed in the surgical department in 6 months after the operation: the perineal and retroperitoneal MRI was performed, 1.5 x 1.0 cm formation was detected on the scar, the oncomarkers were within the age limit. At the age of 1,5 years with the next hospitalization, the level of AFP - 46105 IU / ml, complaints of constipation, dysuric phenomena. During the examination, a recurrent tumor was diagnosed in the pelvic cavity with sprouting into the lumen of the inferior vena cava, metastasis to the lungs, liver, soft tissue of the right gluteal region (Fig. 2, 3).

Thus, the percentage of malignancy in our study was 30%, in 2/3 of which malignancy was detected in the long-term period. Considering the high risk



Fig.1. Giant teratoma of the sacro-coccygeal area

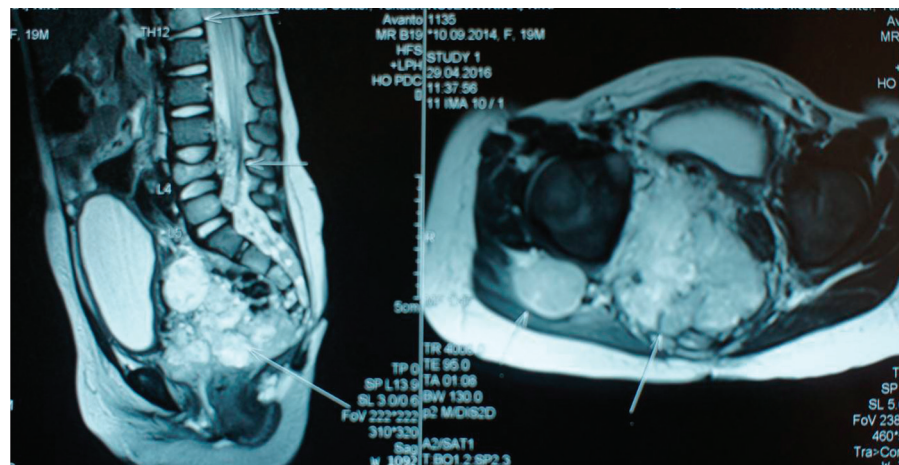
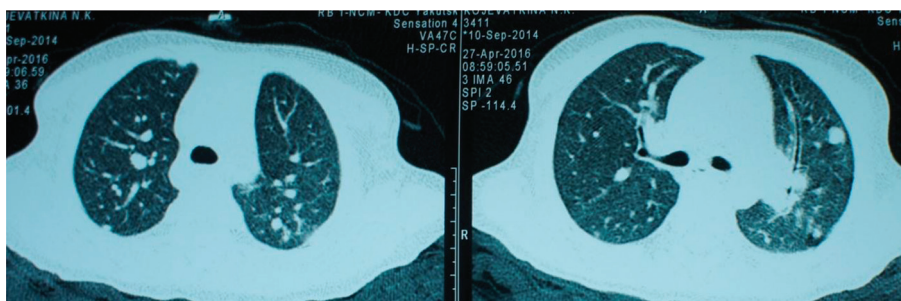


Fig. 2. Recurrent tumor of the pelvis and perineum



**Fig.3.** Remote metastases to the lungs in a child of 1.5 years

of recurrence and metastasis of the tumor in the postoperative period, despite the establishment of a benign variant of tumor, the patients after the operation must necessarily be observed in a pediatric oncologist. In our study, all children in the postoperative period were under the supervision of a pediatric surgeon, AFP screening, examination of a surgeon, ultrasound of the perineum and retroperitoneal space were carried out once every 6 months, and in the first 6 months after the operation - MRI under a general sedation inpatiently.

#### CONCLUSIONS

1. Teratomas of the sacro-coccygeal area are in most cases diagnosed antenatally (80% according to the study).
2. The level of AFP in the neonatal period is not a diagnostic criterion of malignancy, but it can serve as a

screening method in the postoperative period.

3. In the postoperative period, patients should be observed in a pediatric oncologist at any histological conclusion, as the probability of malignancy and recurrence of the tumor is high thereafter.

4. In 30% of cases in our study, the teratoma of the sacro-coccygeal area gave malignancy.

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## OPTIMIZATION OF SURGICAL TREATMENT OF ACUTE ADHESIVE INTESTINAL OBSTRUCTION IN CHILDREN

#### ABSTRACT

The article describes the experience of treatment of acute adhesive intestinal obstruction. The authors analyzed the literature data of etiopathogenesis of the disease, changed terms of radiological investigations, diagnostic laparoscopy is used for diagnosis and assessment of severity of adhesions in children. The effectiveness of the using of laparoscopy in urgent inflammatory operations in children in reducing the frequency of adhesive intestinal obstruction is proved; diagrams of prevention of adhesion obstruction of the abdomen are given. As a result of activities, the frequency of intra-abdominal complications reduced to three times.

**Keywords:** adhesive intestinal obstruction, children, laparoscopy.

#### RELEVANCE

At present, in the modern emergency abdominal surgery of children, the problem of adhesion process has not lost its relevance. Despite of the intensive development of minimally invasive technologies in abdominal surgery, when with the help of high-tech equipment it is possible to reduce significantly the traumatic nature of surgical interventions, the number of immediate and long-term

complications caused by the adhesive process does not decrease [2]. About 1% of all hospital admissions to surgical hospitals and 3% of laparotomy are performed about adhesive disease, and in 60-90% of cases these processes are the cause of the acute intestinal obstruction [4].

According to the literature, 55-70% [1, 2, 3, 4, 5, 6] of patients after abdominal surgery have the adhesion process

in abdominal cavity that can lead to such a severe complication as acute adhesive intestinal obstruction (AAIO) [1]. Postoperative lethality in unfavorable course of AAIO is 16-25% [4].

At present, the issue of timely diagnosis of acute adhesive process remains topical, despite of the existing recommendations for the diagnosis of adhesive intestinal obstruction. The intraoperative pattern is presented by