

MINIMAL INVASIVE OPERATIONS IN INFANTS WITH CONGENITAL URINARY TRACT DISORDERS

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Purpose. To rate retrospectively the results of using minimally invasive surgical operation in treatment of obstructive disorders in infants.

Materials and methods. From 2007 to 2016 1057 patients (257 boys and 614 girls) with a mean age of 5.5 month (range 1m – 5 years) were treated. The patients were classified on four groups: the first - 69 boys with posterior urethral valve associated urodynamics disorders; the second group – 67 patients with duplication and ureterocele; the third group - 170 patients with congenital nonrefluxing megaureter; the fourth - 751 patients with VUR. In all cases minimal invasive surgeries were preferable: transurethral primary valve ablation; endoscopic incision ureterocele, one-J-standing megaureter, endoscopic correction of vesicoureteral reflux with bulking agents.

Results. Transurethral resection of the posterior urethral valve was performed for all patients of the first group - for 56 (81,2%) in one step, for 13 (18,8%) in two steps. Transurethral resection of ureterocele was performed in 53 patients (79,1%) of the second group. 132 patients in the third group was treated with stented of ureter, endoscopic correction of vesicoureteral reflux with bulking agents was performed for patients of the fourth group: collagen for 454 patients (605 ureters), Urodex for 122 patients (189 ureters) and Vantris for 76 patients (121 ureters). The patients were followed according with to a program with repeated US, renal scintigrams (DMSA), frequency/volume chart observation. These investigations were assessed in 4-8-12 and 24 weeks. Antibacterial prophylactics were given and recurrent UTIs were registered, in 76 cases (7,2%) when the disorder wasn't eliminated, minimal invasive reoperation or open surgeries were carry out.

Conclusions. Minimal invasive surgical operations can be performed in babies. They allow to normalize urodynamics and high success rate can be achieved avoid complex reconstructiv operations.

A MODERN METHOD OF TREATMENT OF LONG BONES SOLITARY BONE CYST.THE USAGE OF MINIMAL INVASIVE OSTEOSYNTESIS AND BONE GRAFTING (ALLOGRAFT AND SYNTHETIC MATERIALS)

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Benign bone tumours represents an old but challenging issue (by frequency, morbidity and continuous studies of multiple methods of treatment). Simultaneously with the evolution of technology and the studies regarding bone physiopathology, new surgical techniques are developed and applied everyday.

The aim of this study is to find a simple but effective technique to cure this condition in childhood and adolescence.

This study was performed between 2009-2014 in the Pediatric orthopedic dept. of the Clinical Hospital for Children M.S. Curie-Bucharest and contains 101 patients. We divided the patients in several groups, according to localization, complication of the disease and symptoms at admission. We considered the follow-up of radiographs, disappearing of the clinical symptoms, relapses and the time for full recovery.

The mean follow-up time was between 3-36 months. Complete healing has been achieved in 90% of the cases. We found 2 relapses in which we performed secondary surgery.

The method we've used was effective and it can also be applied in cases of delayed healing or pseudarthrosis, therefore it is our goal to standardise this method.

Material and method:

- we studied 101 patients diagnosed with SBC of the long bones in a period of 4 years;
- we divided these patients in 2 groups, first group with SBC without fracture; the other SBC complicated by pathological fracture;
- another classification was made by localization: 28 were situated in the proximal metaphysis of the humeral bone, 44 were situated in the proximal femur, 14 were located in the proximal tibia, 6 in the distal tibia, 9 on fibula;
- the average age was 9,3 yrs old;
- the male to female ratio was 2,3:1.

The method we've performed was surgical: under general anesthesia we localized the lesion with C-Arm image intensifier, with a minimal incision we treated the cyst by curettage, cauterisation, filling with graft material followed by elastic reinforcement. We also performed a biopsy. The histological appearance confirmed the previous diagnosis.

Results:

- we achieved complete healing in 90% of cases; in 9% we found incomplete filling of the cavity and 2 cases relapsed;
- the average follow-up time was 12 months, first postoperative radiography was taken at six weeks.

Conclusion: This method of treatment is effective and rather simple, with low morbidity rate and low postoperative complications. It is considered expensive because of the need of fluoroscopy and the titan elastic nails, but the total cost is lower than other methods of treatment. The physical recovery after surgery is rapid, so the child is able to perform sport activities soon after the operation. Because of the benefits of the grafting material, the relapses are rare and the mechanical properties of the titanium nails give strength and elasticity to the bone. This method of treatment can be used in the situation of delayed consolidation because it enhances the healing of the affected bone and it stabilizes the site.