



## Original Article

# Surgical treatment in Strangulated Inguinal Hernia in Newborns and Infants

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### ABSTRACT

To date, the gerontology pediatric treatment choice problem inguinal hernias in children continues to occupy a leading position in surgical operation, since it is one of the most common diseases in infants, especially up to 3 years. In cases where the hernia reduce a spontaneous, against the conservative child left the event in a hospital where the necessary investigations were carried out for further surgical treatment to "routinely". On the basis of its own historical and clinical data, analyzed the results of treatment of strangulated inguinal hernias in 50 newborns and infants. To prevent complications strangulated inguinal hernias in infants and premature babies play an important role technical aspects. The indications for the establishment of the Roux plastics in strangulated inguinal hernias in infants and babies were large hernia and prematurity. Postoperative complications have arisen in the form hematoma in 5.4% of cases and scrotal edema - 10%. The high position of the testis was observed in 2.5% of children. Management of pediatric surgeon strangulated inguinal hernias in infants and infants depends on timely diagnosis and timing of onset of the disease.

**Key words:** Hernia, Hematoma, Surgery

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## INTRODUCTION

To date, the gerontology pediatric treatment choice problem inguinal hernias in children continues to occupy a leading position in surgical operation, since it is one of the most common diseases in infants, especially up to 3 years. The focus is on the surgical technique or specific surgical techniques. The choice of surgical treatment, depending on the child's age, type, hernia, its size and the choice of suture material in the plastic, remains unsolved up to now: Do not take into account the relative disparity of growth and development, morphological and functional immaturity of the child's body. Current diagnosis of strangulated inguinal hernia, especially in neonates and infants retains a high percentage of diagnostic and technical errors in an emergency. Accepted current methods of surgical treatment of inguinal hernias in children are not deprived of a number of shortcomings, which is the reason for the search for new sound treatments. When this emergency retained a high percentage of diagnostic and technical errors.

It is known that in the treatment of children from infants and infants with inguinal hernias strangulated, pediatric surgeons

have different tactics. A.P. Biezin (1964) at strangulated hernia primarily recommended to make an attempt to reposition. O.N. Passover (1968) recommended supplement strangulated conservative treatment of hernias in infants dilution method and the rotation of the lower limbs, which helps reposition the contents of the hernia. A. Angels (1964) recommended to carry out, without exception, all the patients treated conservatively, if since the infringement took place, no more than 12 hours and there are no signs of inflammation in the hernial sac. J. Littman (1978) in newborns spent reduction hernia first 3-4 hours from start of infringement.

In cases where the hernia reduce a spontaneous, against the conservative child left the event in a hospital where the necessary investigations were carried out for further surgical treatment to "routinely".<sup>6</sup>

Most researchers point out the difficulty in determining the state to restrain the body and of the changes therein for a short time, which is doubtful for conservative treatment. Therefore, EA Suslennikova, VM Solovskiy and VI Lumpy (1974), believe that conservative measures to reposition hernias seem very

effective and quite dangerous, since changes in the hernial content is not always dependent on the duration of infringement.<sup>13,14</sup>

At the present stage, the majority of pediatric surgeons adheres to a tactic that, if from the time of infringement of hernia do not come no more than 8-10 hours, in the absence of redness, swelling, severe pain, used conservative measures, calculated on unstrangulated contents of the hernia.

Currently, the most common complication of herniotomy in childhood are swelling and bruising of the scrotum, which arise as a result of damage to the capillaries and lymph vessels in the allocation of hernia sac.<sup>10,11</sup> Possible complications in the postoperative period when uschemlënyh inguinal hernias in children range from 7.2% to 25%. This relapse occurrence of inguinal hernia is 0.9% -5.4% of the festering wounds - 7,8-12,5%, the occurrence of bruising scrotum - 4.8%, infiltration - 2.2%, scrotal edema - up 50%.<sup>7</sup>

I.S. Kalter and B.I. Basov (1985); Mt.N.Evoy (1966) pointed out that the swelling of the spermatic cord, occurs in 2-3% of cases. The authors focused on the likelihood of testicular ischemia due to compression of their own vessels. The clinical picture last seen in the postoperative period, after 2-3 hours, and is accompanied by flushing and pasty corresponding half scrotum.<sup>12</sup>

According to ND Kovalev (1970), the highest percentage (52%) of complications was observed in infants. NV Bulygin and EM Kaplin reported that if the excision of the hernia sac made of plastic inguinal canal, the swelling of the scrotum occurs in 68.5% of operated and without plastic - 35%, ie almost twice less, indicating that the small trauma.

Many authors have argued that the separation of the hernia sac is associated with significant traumatization of the spermatic cord, often leading to the formation of hematoma, postoperative infiltrates ligature fistula, suppuration. These complications have contributed to the recurrence of the disease, so removing the hernia sac is not performed by many surgeons because it is not the main condition for the successful treatment of a hernia. Leaving the hernial sac in the wound is not touched, the authors noted that postoperative complications revealed only 5.4%. Complete excision of the sac lengthens the duration of the operation, strangulated hernia 7.5% due to concomitant they have serious diseases, extremely premature or late arrival to the hospital. A poor outcome in neonates with herniotomy is 0.8-2.5%.<sup>6</sup>

In recent years mortality in strangulated hernias decreased significantly due to the widespread use of antibiotics, diagnostics improvement, the use of modern narcotic drugs surgical intervention.<sup>13</sup> Such a way, though, a significant experience in the children's gemitologii many questions remain open and require further analysis and possible to solve this problem.

## AIM

To improve the results of treatment and prevention of complications of strangulated inguinal hernia in newborns and infants.

## MATERIALS AND METHODS

On the basis of its own historical and clinical data, analyzed the results of treatment of strangulated inguinal hernias in 50 newborns and infants in the clinical basis of the Department of Hospital GKDB№1 TashPMI pediatric surgery in the last 6 years. Of these, 22 patients were 28 infants - babies. Of these 35 boys, 15 girls.

## DISCUSSION

To prevent complications strangulated inguinal hernias in infants and premature babies play an important role technical aspects. The indications for the establishment of the Roux plastics in strangulated inguinal hernias in infants and babies were large hernia and prematurity.

For the choice of tactics treatment of strangulated inguinal hernia, the first 8-12 hours in the absence of redness, swelling, severe pain, used conservative measures, relying on unstrangulatedhernia.<sup>14</sup> Conservative treatment good result was observed in 7 children.

Emergency surgery was performed in those cases when it was not known when the onset of the disease or infringement has passed since 12 more hours in the presence of signs of inflammation in the scrotum and the groin.<sup>4,8</sup>

Postoperative complications have arisen in the form hematoma in 5.4% of cases and scrotal edema - 10%. The high position of the testis was observed in 2.5% of children. The increase in testicular volume was associated with excessive suturing the external inguinal ring, with the injury of the spermatic cord, and egg shells, or with a large hematoma in the deeper parts of the wound, which is squeezed spermatic cord, leading to difficulty outflow.

According to our data when excision of the hernia sac with plastic inguinal canal, scrotal edema were observed in 53% of operated and without plastic - 30%, almost twice less, indicating that the low trauma of this method.

In our survey 50 previously operated on the boy strangulated hernia in 5 patients showed atrophy of the testicle on the side of the operation, 8 - reduction of eggs in the one-third, compared with the healthy. The same complications noted by most pediatric surgeon using identical methods of surgical treatment of synthetic sutures in children.

## CONCLUSIONS

1. Management of pediatric surgeon strangulated inguinal hernias in infants and infants depends on timely diagnosis and timing of onset of the disease.
2. Conservative treatment in newborns and infants is indicated in the presence of extremely premature, the newborn with a

significant reduction in body weight, as well as from the moment of infringement was not more than 8-10 hours.

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