

# TEN YEARS STUDY OF INGUINAL HERNIA IN CHILDREN

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## ABSTRACT

*Objective* The aim of this study was to evaluate the management of inguinal hernia in children.

*Study design* Descriptive study.

*Place & Duration of study* Mofid Children Hospital, Tehran Iran from 1996 to 2006.

*Patients and Methods* This retrospective study was carried out on 1000 children less than 12 years who underwent inguinal hernia surgery. Sex, age, type and location of hernia, type of surgery, mortality, and complications of surgery were noted.

*Results* The inguinal hernia was most common among male children (n 83.7%) and on right side while bilateral inguinal hernia was more common in females. The most common associated anomaly was hydrocele (27.6%) and undescended testis (5.85%). The most common abdominal organ found in the sac was small intestine followed by omentum. Out of 837 male patients, 28 had incarcerated hernia (3.4%). These patients were treated primarily by reduction. In 42.8% of cases, reduction was unsuccessful. Half of the patients with incarcerated hernia were below 1 year of age. Most of the incarcerations were seen below 1 month of age. Contralateral exploration was done in 2.85% of the cases. Complications of the surgery were erythema of the incision and recurrent inguinal hernia. Rate of recurrent of inguinal hernia was 0.3%.

*Conclusions* Inguinal hernia is a common surgical condition in children. Elective surgery is associated with minimal complications. Incarceration is more common in infancy with chances of recurrence if explored in emergency.

*Key words* Inguinal hernia, Children, Outcome.

## INTRODUCTION:

Approximately 400 years ago, a French surgeon, Ambroise Pare, described the reduction of an incarcerated paediatric hernia and the application of truss. He recognized that inguinal hernias in children were probably congenital in

nature and that they could be cured.<sup>1</sup> Males are much more likely to have hernias, with the reported male/female ratio between 3:1 and 10:1.<sup>2</sup> Although premature infants have a higher incidence of hernia, but there was no significant gender differences among this group.<sup>2</sup> Premature infants are at an increased risk for inguinal hernia, with the incidence ranging from 7-30%. This study was conducted to report our experience of management of inguinal hernia in paediatric population.

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### **PATIENTS AND METHODS:**

This retrospective study was carried out on 1000 children with inguinal hernia aged < 12 years. Sex, age, type and location of hernia, type of surgery, mortality, and complications of surgery were studied. This study was carried out in Mofid children hospital Tehran Iran.

### **RESULTS:**

The inguinal hernia was most common among male children (n 83.7%). The children were aged 5 days-12 years and most of the patients presented around 30 months. Right sided inguinal hernia was more common than left. Bilateral inguinal hernia was more common in the females. In 99% of the cases, hernia was diagnosed by the parents for the first time. In all cases high ligation of hernial sac was performed. In 19.45% of the patients, external oblique muscle was opened. 98.7% of operations were elective. The most common associated anomaly was hydrocele (27.6%) and undescended testis (5.85%). The most common abdominal organ found in the sac was small intestine followed by omentum, appendix, and colon. Out of 837 male patients, 28 patients had incarcerated hernia (3.4%). These patients were treated primarily by reduction. In 42.8% of cases, reduction was unsuccessful. Half of the patients with incarcerated hernia were below 1 year of age. Most of the incarcerations were seen below 1 month of age. Contralateral exploration was done in 2.85% of the cases. Complications of the surgery were erythema of the incision and recurrent inguinal hernia. Rate of recurrent of inguinal hernia was 0.3% in the patients who underwent surgery in our hospital for the first time.

### **DISCUSSION:**

As mentioned earlier, the most common clinical symptoms was inguinal area swelling. It has been suggested that patients with left sided hernia are more likely to develop right sided hernias than vice versa.<sup>2,3</sup> Approximately 60% of hernias are right sided.<sup>2</sup> In our study, most patients were between 2-6 years of age. This is may be due to parental disagreement for surgery. Hernia recurrence rates are less than 1% when experienced pediatric surgeons perform the operation. The rate of recurrence in our patients was 0.3% in patients who were operated in our hospital.

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