

Inguinal herniotomy in children: a one year survey at Nepal Medical College Teaching Hospital

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ABSTRACT

This was a prospective study done at Nepal Medical College Teaching Hospital from July 2008 to June 2009 which covers our experience in inguinal herniotomy in children. Our study included 63 inguinal hernia repairs in 61 children up to the age of 15 years. Out of 61 patients 2 had bilateral inguinal hernia and 59 had unilateral. Among 59 patients with unilateral hernias, 7 patients had emergency presentation. In children with unilateral hernias, it was found that it is more common at right side and regarding complication it is more common in emergency group. There were 5 recurrences and 5 wound infection among all patients.

Keywords: Inguinal hernia, herniotomy.

INTRODUCTION

Inguinal hernia repair is the most commonly performed surgical procedure in children. Most children with an inguinal hernia have minimal symptoms. The diagnosis is usually made easily and the repair generally is uncomplicated. For inguinal hernia, elective herniotomy is indicated to prevent incarceration and subsequent strangulation. This operation is frequently delegated to junior surgeons or performed by consultants with no specific pediatric training, so we made a prospective study to find out the outcome of surgery in Department of Surgery, Nepal Medical College and Teaching hospital in one year.

MATERIAL AND METHODS

The hospital records of all children up to 15 years of age under going inguinal hernia repair over one year period from July 2008 to June 2009 were included. These patients were followed up for 2 years. All the patients, who were operated electively, admitted one day before surgery and operated under intravenous anesthesia. Oral feeding was started after 3 hours of surgery in those patients who were operated electively and discharged next day only. Those who were operated at emergency basis oral feeding was started on 1st postoperative day

and discharged on 2nd postoperative day. All the patients were followed on 7th postoperative day and those who had complications were followed as needed. The parents of these children were called asking whether the child had undergone a second operation for recurrence of the hernia and whether there had been any other problems related to the operation. The cases where the parents were unable to be traced were excluded from the study.

RESULTS

The case notes of 61 children were included. There were 51 boys and 10 girls up to the age of 15 years (Fig.1), with a ratio of 5.1:1. Bilateral groin exploration was done in 2 children, therefore total 63 herniotomies were performed. Out of 59 children with unilateral hernia, 41 presented with right sided hernia and 18 had left sided (Table-1). Those children with unilateral hernias, all had indirect inguinal hernia which were dealt with ligation of the neck of the sac at the internal ring and narrowing of the ring in some cases. Among 59 children, there were 7 emergency presentations (11.86%) with an irreducible hernia (6 male, 1 female), two third of these were below 12 months of age and all had surgery on same day of admission. Among these children the sac contained small bowel in 3 children and omentum in 4 children. None of the children needed resection of sac contents. Recurrence was present in 5 (8.2%) children out of which 3 were operate red on emergency basis and 2 were operated on elective basis and all were unilateral hernias. Excluding recurrences there were 4 recorded post operative complications in the elective group and 1 in the emergency group and that was postoperative wound infection (Table-2).

Table -1: The side of presentation and sexratio of 61 children with inguinal hernia

	Side of presentation			Total
	Right	Left	Bilateral	
Boys	35 (57.4%)	15 (24.6%)	1 (1.6%)	51 (83.6%)
Girls	6 (9.8%)	3 (4.9%)	1 (1.6%)	10 (16.4%)
Total	41 (67.2%)	18 (29.5%)	2 (3.3%)	61

Table -2 : Showing complications of emergency and elective surgery

	Total	Recurrence	Postoperative wound infection
No of patients	61	5(8.2%)	5(8.2%)
Emergency	7	3(42.8%)	1(14.3%)
Elective	54	2(3.7%)	4(7.4%)

DISCUSSION

Congenital indirect inguinal hernia is a common pediatric condition. Inguinal hernia repair is the commonest operation performed in pediatric surgical practice. The procedure can be difficult even in the most experienced hands and especially when performed as an emergency.¹ The results from this survey show that age, sex incidence and presenting side are similar to those reported in several large American series.²⁻⁷ It shows that in terms of sex, it is more common in male and in terms of side, it is more common in right side. Out of 59 unilateral hernias, 7 were admitted in emergency basis with irreducible hernias, that is 11.86% which contained small bowel in 3 children and omentum in 4 children and did not require any resection of sac contents. All of these patients were below 12 months of age. A similar rate of irreducible hernia in infants under one year of age has been noted by others^{3-5,8-9} and emphasizes the need for elective operative treatment of inguinal hernia as soon as is practical following diagnosis. Emergency operation for irreducible hernia can be a difficult procedure because the cord structures and hernia sac are often very edematous and the risk of damage to the delicate testicular vessels and vas deferens is much higher than in elective herniotomy.^{10,11} Most infants with an irreducible hernia are first treated by sedation and elevation of the foot end of the bed or gallows traction and between 53%¹² and 93%¹³ will reduce spontaneously or after gentle taxis. There is some evidence that the incidence of testicular infarction and atrophy is less with this form of management than with emergency surgery on the day of admission.¹⁴ However, should these

conservative measures not bring about rapid reduction of the hernia, operation should be performed without delay. But in our cases all conservative measures did not reduce the hernia, so all were operated on the same day of admission.

Regarding complications, 5 children developed postoperative wound infection that was 8.2% of total patients. Among these, 4 were from elective group and 1 was from emergency group. There were 5 recurrences i.e. 8.2% of total patients and all were unilateral and 3 were from emergency group and 2 were from elective group. It shows that recurrence and postoperative wound infection is slightly more among the emergency group than elective group. The incidence of late complications of herniotomy including testicular atrophy, high testes and infertility due to damage to the vas deferens could not be commented due to inadequate follow up.

In conclusion, herniotomies can be performed by junior surgeons or consultants with no specific pediatric training, and should be operated as soon as possible due to risk of having preoperative complications.

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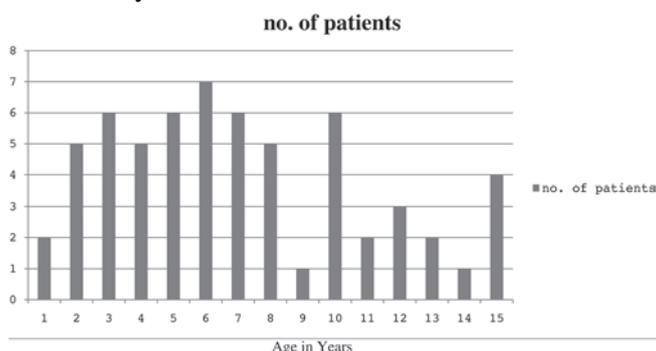


Fig.1.Number of children treated for inguinal hernia