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Research Article

**CAUSES OF EMERGENCY ABDOMINAL SURGERIES IN  
CHILDREN UNDER 12 YEARS OF AGE**<sup>1</sup>Dr. Arshia Ijaz, <sup>2</sup>Dr. Muhammad Arish, <sup>3</sup>Dr. Samima Yasmin<sup>1</sup>WMO, Government Maternity Hospital, Gujrat.<sup>2</sup>MO, BHU 164-A/9L, Chichawatni, Sahiwal.<sup>3</sup>WMO, THQ Hospital, Khushab.**Abstract:**

**Objective:** To find out causes of laparotomy in paediatrics population under 5 years age group presenting to paediatric surgery department of a teaching hospital. **Background:** laparotomy is a major procedure conducted on surgical floor. The paediatrics age group is usually less than 12 years. Many surgical procedures are done in paediatrics surgery unit. However, limited data is available regarding causes of laparotomy. **Methods:** total 258 patients were studied, over a period of one year starting from 1<sup>st</sup> July 2016 to 30<sup>th</sup> June 2017. Study design was descriptive, prospective study. Frequencies and percentages were calculated. **Results:** Male children commonly underwent laparotomy as compared to females. 65.8% patients were males, congenital malformations being the most common cause (92.29%), second most common cause is infective (21.7%).

**Key Words:** laparotomy, children, causes, teaching hospital.**\* Corresponding author:****Dr. Arshia Ijaz,**

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**INTRODUCTION:**

Abdominal surgeries lead to obstructions caused by adhesions. Laparotomies are common among adults, caused due to intestinal obstruction or perforation or hernia. However, the causes in children are different and needed to be sorted out. The causes if preventable can help us reducing the number of extensive abdominal surgical procedures in children [1].

The abdominal compartment syndrome is a serious illness occurred in children, which if left untreated can lead to mortality. Surgical decompressive procedure is the treatment of choice for such conditions [2]. Acute appendicitis is one of the common reasons of laparotomy in children between 2 to 12 years of age group, stated by Drake DP [3]. A case about peritonitis caused by duodenal ulcer perforation in a 10 years old girl was reported by Ndoye NA, et al. Duodenal perforation caused by peptic ulcer is a common cause of acute abdomen in

adults, however it is a rare cause of laparotomy in children [4]. 955 children between 1 to 15 years were studied at Komfo Anokye Teaching hospital and it was concluded that TP of the GIT, acute appendicitis, intestinal obstruction, irreducible external hernia and primary peritonitis were the most common emergencies in children which lead to laparotomies on paediatric surgical floor [5].

**METHODOLOGY:**

Patients who underwent laparotomy at department of paediatric surgery at Mayo hospital, Lahore were studied. Their data was collected in order to find the cause. This is a descriptive prospective study. Study duration was one year, from July 2016 to June 2017. Age, gender and cause of laparotomy was studied. Age stratification into three groups was done, neonate (upto 1 month), infant (more than 1 month to 12 months) and child (more than 12 months to 12 years).

**RESULTS:**

Table 1, 2 and 3 represent the results obtained. It was noticed that males (65.8%) underwent laparotomy more commonly as compared to females (34.1%) shown in [table 1].

Table1: percentage of patients on basis of gender

Gender	Number	Percentages
Males	170	65.8%
Females	88	34.1%

. Table 2: percentage of patients on basis of age.

Age	Number	Percentages
Neonate	69	26.7%
Infant	41	15.4%
Child	148	57.3%

Table 3: causes of laparotomy.

Causes of laparotomy	Number of patients.
<b>Congenital</b>	73 (28.2%)
Atresia	44
Omphalocele	10
Hirshsprung	7
Diaphragmatic hernia	2
Cysts	4
Meckels diverticulum	1
Volvulus	2
Hernia	2
<b>Obstruction</b>	60 (23.2%)
Adhesion/bands	43
Intussusception	15
Worms	2
<b>Infective</b>	56 (21.7%)
Acute perforation	44
TB abdomen	9
NEC	3
<b>Traumatic</b>	36 (13.9%)
Blunt	30
Penetrating	6
Redo surgeries	21 (8.13%)
Mass	12 (4.6%)

Congenital anomalies are the most common cause of laparotomies in children (28.2%), followed by obstruction (23.2%), infective causes (21.7%), traumatic (13.9%), Redo surgeries (8.13%), mass (4.6%).

### DISCUSSION:

Causes of emergency abdominal surgeries were studied by Ghritlaharey RK, et al. with purpose to reduce the number of surgeries and to manage the acute abdominal conditions conservatively, if possible. Extensive abdominal procedures lead to life complications caused by adhesions [6]. Role of laparoscopy in management of children with recurrent abdominal pain was studied by Stringel J, et al. it was observed that diagnostic laparoscopy helped in diagnosing the cause behind the recurrent abdominal pain, and pain relief was obtained in almost 50% cases [8,10]. Causes of severe untreated recurrent vomiting which could possibly be treated by surgical procedure were studied in 1996. The causes were malrotation, gastric atresia, meconium ileus, hirshsprung disease, hernia, intussusception, gastrointestinal reflux, pyloric stenosis [7,9].

In understudy title causes of laparotomy were studied with aim to sort out whether causes most commonly leading to laparotomy are preventable or not. It was concluded that causes majority responsible for extensive abdominal procedures were congenital.

### CONCLUSION:

Congenital anomalies constitute the most common cause of laparotomies in children, most commonly

age group involved in between 12 to 24 months. The preventable causes like infection constitute only 21%. Laparotomies are more common among males as compared to females.

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