

## Relaparotomy in Obstetrics and Gynaecology Department of a Medical College Hospital in Old Dhaka City

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### Abstract :

The objectives of this study were to analyze the cases that underwent relaparotomy and identify indications of primary and relaparotomy surgeries, relaparotomy findings, and procedures undertaken and find out avoidable risk factors of such emergency situations. This was a retrospective descriptive study done in Dhaka National Medical College Hospital during the period from July 2011 to June 2013. Out of 6983 operations (Obstetric and Gynae) 13 cases needed relaparotomy. In ten case primary operations were performed in this hospital and three were performed in outside clinics( one outside Dhaka).Indications of relaparotomy were, internal haemorrhage, foreign body, rectus sheath haematoma, secondary PPH, fecal fistula, post surgery adhesion. Procedure performed during repeat operations were hysterectomy, resuturing of uterine incision ,peritoneal toileting and removal of blood clot, removal of foreign body, drainage of rectus sheath haematoma, fecal fistula repair, adhesiolysis. To reduce the risk of relaparotomy and to minimize the sufferings of the patients from relaparotomy, proper case selection during primary operation, competency of the surgical team, appropriate surgical procedures, prompt identification of complication and early necessary intervention should be maintained in every hospital.

*Key Words: Relaparotomy, Obstetrical and Gynaecological operation*

### Introduction:

Obstetrics and Gynaecology department of every hospital often experiences operative complications after surgery . Both obstetrical and gynaecological abdominal operations may require relaparotomy. The term "re-laparotomy " (RL) refers to laparotomy performed for the original disease within 60 days of the first operation <sup>1</sup>. Complications may occur after emergency as well as elective operations. When conservative measures fail second time operations are considered to save lives. Complications may be identified early or in a later period. Patients may deteriorate within a short period or they may experience chronic symptoms. The purpose of relaparotomy is to manage complications of previous surgery, maintain homeostasis, prevent intraabdominal infection or sepsis and carry out delayed curative surgery<sup>2</sup>.

The objectives of this study were to analyse the cases that underwent relaparotomy and identify indications of primary and relaparotomy surgeries, relaparotomy findings, procedures undertaken and find out avoidable risk factors of such emergency situations.

### Materials and Methods :

This was a retrospective descriptive study in obstetrics and gynaecology department of Dhaka National Medical College during a period of three year from June 2011 to July 2013. During this period 1203 gynae major operations and 5780 caesarean sections were done. Data from all the repeat operations cases were collected and analyzed. Also information were collected from the patients attendants and patients referral notes. Eight cases were post caesarean and

five cases were after major gynae and other operation. Out of thirteen cases three primary operations were carried outside the hospital and ten cases were performed in this hospital.

**Results :**

Total number of operations was 6983, both gynae operations and caesarean sections were included. During the study period total number caesarean section was 5780 and total number of major gynae operations 1203. Total number of relaparotomy was thirteen. The rate of relaparotomy after Caesarean section was .138% and gynae operation was .42%. So the combined rate of (Caesarean section & gynae operation) of repeat laparotomy was .186%.

Out of thirteen operations three were operated outside this hospital. Nine (69.23%) cases were done in emergency basis and 4 (30.77%) were elective operations. Among the repeat operations, eight were obstetrical that is caesarean section and the rest 5 (38.46%) were gynae operations. Emergency and elective operations those needed repeat operation, were performed by junior doctors.

The age range of the patients was 20 -45 years with average of 31.45 years. The parity of the patients ranged from 1 to 6 with a median of 3 children. All of them were house makers and came from middle class family.

Majority (75%) of the primary operations (obstetrical) were due to previous caesarean section, fetal distress and prolonged labour. Majority (40%) of primary gynaecological operation was hysterectomy.

**Table1: Indications of primary operations.**

Indications.	Number (13)	Percentage (100%)
<i>Obstetric cases (8)</i>		
H/O previous caesarean section	2	25
Fetal distress	2	25
Prolonged first stage of labour	2	25
Obstructed labour	1	12.5
Preclampsia	1	12.5
<i>Gynae and other operations (5)</i>		
TAH due to ovarian tumour	1	20%
TAH due to fibroid uterus	1	20%
Myomectomy	1	20%
Post MR complication	1	20%
Appendicectomy	1	20%

**Table 2: Indications of relaparotomy.**

Indications	Number	Percentage
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	(13)	(100%)
Intraperitoneal haemorrhage	5	38.46
Foreign body	3	23.08
Rectus sheath hematoma	2	15.38
Secondary post partum haemorrhage	1	7.69
Fecal fistula after laparotomy due to MR complication	1	7.69
Lump in abdomen after appendicectomy	1	7.69

**Table 2** shows the indications of repeat surgery where intraperitoneal haemorrhage was the most common cause (38.46%). Foreign body was the indication in 23.08%cases.

**Table3: Time interval between primary operation and repeat laparotomy.**

Time interval	Number (8)	Percentage (100)
6-12 hours	3	23.08
12-24 hours	4	30.76
24hours -10 days	3	23.08
10 days – 55 days	3	23.08

Most (30.76%)of the relaparotomies were done between 12-24 hours. Second time operation were done performed from 6 hours to 55 days.

**Table 4: Findings on relaparotomy**

Findings	Number (8)	Percentage (100%)
Internal haemorrhage and blood clot	4	30.77
Foreign body	3	23.08
Bleeding from the hysterectomy stump	2	15.38
Rectus sheath haematoma	2	15.38
Fistula in large gut	1	7.69
Intra abdominal postsurgery adhesion	1	7.69

Internal haemorrhage and blood clot was found in 30.77 percent cases, foreign body in 23.08 percent cases.

**Table 5: Procedures done during reopening of abdomen**

Procedures	Number (8)	Percentage (100%)
Removal of foreign body	3	23.08
Subtotal hysterectomy	2	15.38
Resuturing of uterine incision, removal of blood clot and peritoneal toileting and	2	15.38
Resuturing of hysterectomy stump	2	15.38
Drainage of rectus sheath haematoma	2	15.38
Total abdominal hysterectomy	1	7.69
Repair of fistula	1	7.69

**Table6: Outcome of patients.**

Outcome	Number (8)	Percentage (100%)
Improved	11	84.62
Referred	1	7.69
Expired	1	7.69

Outcome of the patients was good. Only one patient expired due to electrolyte imbalance, one referred to kidney hospital due to high creatinin level. Eleven patients survived and discharge from the hospital in good health (Table: 6) .

#### Discussion:

In this study we analyzed thirteen cases who required repeat surgery after primary obstetrical, gynaecological and other abdominal operation. Most of the studies in other institution and countries were done on relaparotomy after caesarean section. There is almost no study on gynaecological repeat surgery. Here we discuss mainly on obstetrical cases. We found the rate of relaparotomy .138%. But study in Faridpur<sup>3</sup>, Khulna<sup>4</sup>, Dhaka<sup>5</sup> medical college hospital found the rate .80%, .85%, and .63%, . In Indian teaching hospital<sup>6</sup> it was found .33%. The difference may be due to increased number of referral patients in these hospitals. It is nearly similar found in two studies in Turkey<sup>7</sup> and Israel<sup>8</sup> which are .12% and .2% respectively which are nearly similar to our study.

Indication of caesarean section differs from Khulna<sup>4</sup> and Indian<sup>6</sup> study which are prolonged labour but we found previous history of caesarean section<sup>as</sup> the most common cause. But obstructed labour was found to be second most common cause 12.5% in our study as well as in another study<sup>9</sup> done in Dhaka Medical college hospital.

Indications of relaparotomy were comparable to other studies. We found internal haemorrhage and PPH as 46.46% and other studies showed, 45.8%<sup>5</sup>, 42.42<sup>6</sup>, 33.2%<sup>3</sup>, 56.36%<sup>4</sup>, 51.85%<sup>9</sup>.

Hysterectomy either total or subtotal was done in the majority of relaparotomy cases in the study in Khulna (38.18%)<sup>4</sup> ,

Dhaka (70.83%)<sup>5</sup> , Dhaka (64.81%)<sup>9</sup> . But in our study it was only 23% which is similar to Turkey study (20%)<sup>7</sup> . Lower percentage in our study may be that both obstetric and hynaecologic operations were included in the study.

Drainage of rectus sheath haematoma was done in 15.38% in this study which is similar to Khulna 14.55%)<sup>4</sup> and Faridpur(13.3%)<sup>3</sup> study.

Foreign body was removed in23.07% cases in this study whereas in Faridpur<sup>3</sup> study it was only13.3%.

Maternal mortality was higher in Dhaka ( 25%)<sup>5</sup> , Dhaka (33.33%)<sup>9</sup> . Mortality is lower in our study (7.69%), and studies conducted in Turkey (2.86%)<sup>7</sup> , Faridpur (6.67%)<sup>3</sup> , Khulna (12.73%)<sup>4</sup> , and India (12.1%).The is may be due to earlier recognition of the cases requiring relaparotomy and effective management of the patients. No third time relaparotomy was needed in this study and this is similar to the findings of Turkey<sup>7</sup> study only.

#### Conclusion:

Early detection of the need for repeat surgery and prompt intervention save lives. Several actions before primary operation both elective and emergency such as appropriate case selection, skilled surgical team, standard surgical procedure, concentration during primary operation, avoidance of hurries, expert opinion can reduce relaparotomy rate thus minimising the patients' morbidities and mortality.

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