Original Article

Type of Operation and Findings during Operation in Fibroid Uterus

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ABSTRACT

Introduction: *Uterine fibroids, benign tumors affecting a significant proportion of women, present diverse clinical symptoms impacting quality of life. Surgical management is intricate, ranging from minimally invasive to extensive procedures. Establishing a standardized operative classification becomes imperative for tailored approaches. This scientific inquiry aims to review existing classifications and analyze postoperative findings, contributing valuable insights to the evolving landscape of fibroid uterus surgery.* ***Objective:*** *This study aimed to investigate the type of operation in fibroid uterus and analyze the findings during operation in patients undergoing surgical intervention.* ***Methods and materials:*** *A retrospective analysis was conducted on a cohort of 50 patients with fibroid uterus who underwent surgical procedures between March 2011 and March 2012. Patient demographics, preoperative imaging, and operative records were reviewed to classify fibroids based on size, location, and number. Surgical procedures included myomectomy and hysterectomy.* ***Results:*** *In this study, it is found that 72% of cases involved only total abdominal hysterectomy (TAH), 12% involved TAH combined with unilateral salpingo-oophorectomy, and 10% involved TAH combined with bilateral salpingo-oophorectomy, 4% involved myomectomy, and 2% involved polypectomy. During*

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operation it was identified that 44% of patients had uteri that were 13–16 weeks gestation when they had surgery, 90% had several myomas, 96% had myomas in the corpus and fundus of the uterus, and 84% primarily had interstitial. ***Conclusion:*** *The study findings collectively contribute to a comprehensive understanding of the surgical landscape for uterine conditions, emphasizing the diverse nature of procedures performed and the specific characteristics associated with patients undergoing these surgeries.*

Keywords: *Total Abdominal Hysterectomy, salpingo-oophorectomy, myomectomy, myomas*

INTRODUCTION

Uterine fibroids, also known as leiomyomas or myomas, are benign tumors arising from the smooth muscle cells of the uterus [1]. These prevalent and often asymptomatic neoplasms affect a substantial proportion of women, with an estimated incidence ranging from 20% to 80% during their reproductive years [2]. Despite their benign nature, fibroids can cause a variety of clinical symptoms, including heavy menstrual bleeding, pelvic pain, and reproductive complications, thereby significantly impacting the quality of life for affected individuals [3].

The surgical management of fibroids is a complex and evolving field, with various procedures designed to alleviate symptoms and address fertility concerns [4]. Surgical interventions range from minimally invasive techniques such as laparoscopic or hysteroscopic myomectomy to more extensive procedures like abdominal myomectomy or hysterectomy [5]. Given the heterogeneity in fibroid characteristics and patient preferences, the development of an operative classification system becomes imperative to guide surgeons in choosing the most appropriate surgical approach for individual cases [6].

The significance of establishing a standardized classification lies in its potential to enhance communication among healthcare professionals, facilitate research, and ultimately improve patient outcomes. By systematically categorizing fibroid uterus surgeries based on operative parameters such as size, location, and number of fibroids, surgeons can tailor their approach to optimize efficacy while minimizing associated risks [7-8].

Postoperative findings following fibroid uterus surgeries represent a crucial aspect of patient care, influencing recovery trajectories, and providing valuable insights into the long-term outcomes of various surgical interventions. Comprehensive assessment of postoperative outcomes includes considerations such as symptom relief, fertility preservation, complications, and patient satisfaction [9-10]. A thorough understanding of these findings is essential for refining surgical techniques, enhancing preoperative counseling, and informing evidence-based decision-making in the management of fibroid uterus [11].

In this pursuit of knowledge, this scientific inquiry aims to review and analyze existing operative classification systems for fibroid uterus surgeries, exploring their strengths and limitations. Additionally, we endeavor to synthesize available literature on postoperative findings, examining the multifaceted aspects of patient recovery and treatment success. Through this systematic approach, we aspire to contribute valuable insights to the ever-evolving landscape of fibroid uterus surgery, fostering advancements that

benefit both clinicians and the women they serve.

METHODS & MATERIALS

The research was designed as a cross-sectional study conducted at the Department of Gynecology & Obstetrics, Rangpur Medical College & Hospital, Rangpur, Bangladesh, spanning from March 2011 to March 2012. Commencing with 56 participants, six withdrew from the study, resulting in a final sample size of 50 individuals chosen through a randomized purposive procedure. Selection criteria for patient admission included clinical presentation, a general examination (physical, per speculum, and bimanual), and confirmation of diagnosis through transvaginal ultrasound (TVU) or ultrasonography (USG). Subsequently, the selected patients were hospitalized for final care.

This study focused on women of reproductive age or perimenopausal experiencing symptoms related to a fibroid uterus. Exclusion criteria aimed at refining the participant pool excluded individuals with a fibroid uterus exhibiting malignancy in female genital organs or concomitant endometriosis. Patients with fibroid uteri and coexisting systemic diseases like liver disease were also excluded to maintain the study's focus.

A questionnaire, administered after appropriate counseling and obtaining written consent, was used to collect information from 56 randomly selected patients admitted to the Gynae ward with fibroid uterus symptoms. Data were obtained through laboratory tests and interviews, compiled onto a master sheet, and processed using Microsoft Excel for statistical analysis, including frequency percentages presented in tables. SPSS version 12 was utilized for further examination. Ethical approval was obtained from the hospital ethical committee, adhering to proper guidelines.

RESULTS

This descriptive type cross-sectional study included 56 consecutive cases of uterine leiomyoma that were admitted; six of these patients had their enrollment in the study rejected, and the remaining 50 patients were treated in the obstetrics and gynecology department of the Rangpur Medical College Hospital between March 2011 and March 2012.

Table I: Age distribution of the patient (n=50)

Age group (years)	Frequency	Percentage (%)
≤20	0	0
21-30	1	2
31-40	30	60
41-50	18	36
>50	1	2

Table I demonstrates that 36 percent of the 50 patients in this study were older than 40 years. Sixty percent of the patients in this group were between the ages of 31 and 40.

Table II: Parity of the patients (n=50)

Para	Frequency	Percentage (%)
0	4	8
1-2	18	36
3-5	24	48
6-7	4	8

Table II demonstrates that 48% of the patients belonged to the para 3-5 category. In the para0 group, there were just 8% of patients. Seven was the greater parity among the patients.

Table III: Age of last child (n=50)

Age group (years)	Frequency	Percentage (%)
1-5	4	8
6-10	12	24
11-15	12	24
16-20	20	40

Table III demonstrates that for 40% of patients, the previous child's age ranged from 16 to 20 years.

Table IV: Haemoglobin percentage at the time of admission (n=50)

Haemoglobin	Frequency	Percentage (%)
30-40	4	8
41-50	20	40
51-60	24	48
61-70	2	4

Table IV indicates that 96% of patients had hemoglobin percentages below 60%, whereas 88% had values below 40%.

Table V: Blood transfusion (n=50)

Units	Frequency	Percentage (%)
Unit-1	12	24
Unit-2	28	56
Unit-3	10	20

Table V demonstrates that whereas only 20% of patients required a single blood transfusion before surgery, most patients needed two to three units.

Table VI: Types of operations done (n=50)

Type of operation	Frequency	Percentage (%)
Total abdominal hysterectomy only	36	72
Total abdominal hysterectomy with unilateral salpingo-oophorectomy	6	12
Total abdominal hysterectomy with bilateral salpingo-oophorectomy	5	10
Myomectomy	2	4
Polypectomy	1	2

Table VI reveals that 72% of cases involved only total abdominal hysterectomy (TAH), 12% involved TAH combined with unilateral salpingo-oophorectomy, and 10% involved TAH combined with bilateral salpingo-oophorectomy, 4% involved myomectomy, and 2% involved polypectomy.

Table VII: Findings at operation (n=50)

Findings	Frequency	Percentage (%)

Size of uterus		
Bulky uterus	2	4
8-12 weeks gestation size	20	40
13-16 weeks gestation size	22	44
17-20 weeks gestation size	6	12
Number of myoma		
Single	5	10
Multiple	45	90
Position of myoma		
Corpus fundus and	48	96
Myomatous polyp	2	4
Cervical		
Location of myoma		
Interstitial	42	84
(intramural)	5	10
Subserous	2	4
Submucous	1	2
Myomatous polyp		

Table VII reveals that 44% of patients had uteri that were 13–16 weeks gestation when they had surgery, 90% had several myomas, 96% had myomas in the corpus and fundus of the uterus, and 84% primarily had interstitial.

Table VIII: Blood loss during operation (n=50)

Amounts	Frequency	Percentage (%)
Mild	32	64
Moderate	14	28
Severe	4	8

Table VIII demonstrates that only 8% of cases had severe hemorrhage. Mild hemorrhage occurred in 64% of cases, while moderate hemorrhage occurred in 28%.

DISCUSSION

The age of the last child varied among the patients, with 40% reporting an age range of 16-20 years. This information could be relevant in understanding the potential association between the time since the last childbirth and the development of uterine leiomyoma. Hemoglobin levels at the time of admission were generally low, with 96% of patients having levels below 60% and 88% below 40%. This emphasizes the importance of monitoring and managing anemia in patients with uterine leiomyoma, as low hemoglobin levels may impact surgical outcomes and overall patient well-being.

The study highlights that a significant proportion of patients (56%) required blood transfusion preoperatively, with the majority needing 2-3 units. This underscores the importance of assessing and correcting anemia before surgery to minimize perioperative risks. A recent comprehensive review of the literature (23 studies) on leiomyomas and reproduction reported and overall conception rate of 57% after myomectomy among prospective studies [12].

Total abdominal hysterectomy (TAH) was the most common surgical intervention, performed in 72% of cases. The findings indicate a preference for TAH as a treatment modality for uterine leiomyoma in the study population. Additionally, the distribution of myomectomy and salpingo-oophorectomy procedures provides insights into the diversity of surgical

approaches. A study of 735 patient on the current surgical and radiological management of uterine fibroids in the UK. In 735 (86%) admitted to regular sessions of gynecologic surgery, and 75% of this group performed open myomectomy, 16% laparoscopic myomectomy, and 66% hysteroscopic myomectomyOperative findings reveal that a significant proportion of patients (44%) had a uterus size corresponding to 13-16 weeks of gestation [13-14].

The majority of patients (90%) had multiple myomas, and 96% of these were located in the corpus and fundus of the uterus. These findings align with the known characteristics of uterine leiomyoma. The largest uterine size the majority would attempt was equivalent to a12 week gestation, 58.6% used preoperative.

Regarding blood loss during the operation, the study demonstrates that severe hemorrhage occurred in only 8% of cases, emphasizing the overall safety of the surgical interventions performed. Moderate and mild hemorrhages occurred in 28% and 64% of cases, respectively, suggesting that most surgeries were associated with manageable blood loss. GnRHa, 21% used intraoperative vasoconstrictors, and 1.4% tourniquets in order to minimize bleeding [15].

CONCLUSION

In conclusion, this study provides a comprehensive overview of the surgical outcomes of patients with uterine leiomyoma. The findings contribute to the existing body of knowledge on this prevalent gynecological condition and may guide future research and clinical practice in the management of uterine leiomyoma. However, it's essential to note that further studies with larger sample sizes and longitudinal designs are warranted to validate and expand upon these findings.

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CONFLICT OF INTEREST

None declared

ETHICAL APPROVAL

The study was approved by the Institutional Ethics Committee

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