

# Analysis of Indications and Different Surgical Approaches for Gynecological Hysterectomies at A Tertiary Care Hospital

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## ABSTRACT

**Objective** To analyze the indications and approaches for hysterectomy in gynecological diseases.

**Study design** Retrospective analytical study.

**Place & Duration of study** Department of Obstetrics and Gynecology Unit-III, Bolan Medical College Quetta, from January 2013 to December 2020.

**Methodology** Clinical records of all the patients who underwent hysterectomy for gynecological reasons were retrieved from hospital database. A form was designed to collect relevant data. Descriptive statistics were used to present data in frequency and percentages.

**Results** In an eight-year period out of 1383 major gynecological surgeries, 942 (68%) patients underwent hysterectomy. Out of these gynecological hysterectomies, 762 (81%) were performed through abdominal approach and 180 (19%) through vaginal route. Most common indication was dysfunctional uterine bleeding (DUB) in 330 (35%) followed by utero-vaginal prolapse in 180 (19%) and fibroid uterus in 135 (14.3%). The mean age of patients was 48 years in abdominal hysterectomy and 56 years in vaginal hysterectomy groups. Most of the patients were grand multipara. The mean parity was 7.6 in abdominal and 8.2 in vaginal hysterectomy patients.

**Conclusion** Hysterectomy was the commonest gynecological operation performed at a tertiary care hospital and dysfunctional uterine bleeding was the most common indication. Most of the patients were grand multipara and in older age group.

**Key words** Abdominal Hysterectomy, Dysfunctional uterine bleeding, Utero-vaginal prolapse, Fibroid uterus, Vaginal hysterectomy.

## INTRODUCTION:

Hysterectomy is the most common major surgical procedure performed in the field of gynecology worldwide. In united states approximately 600,000 procedures are performed annually. Estimates

suggest that one in nine women will undergo hysterectomy during their lifetime.<sup>1,2</sup> With advances in technology nowadays hysterectomy is performed through minimally invasive techniques.<sup>3</sup>

Indications of hysterectomy varies from common benign conditions like fibroids, endometriosis, uterine prolapse, adenomyosis, pelvic inflammatory disease (PID) to malignancies of uterus.<sup>4</sup> There is always a debate on valid indications for carrying out hysterectomy as most advanced medical and conservative treatments are now available for benign conditions of uterus.<sup>5</sup>

Uterus is not a vestigial organ after childbearing age as most of the women think after completion of the family. Studies have shown that after hysterectomy

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women may suffer psychosexual problems.<sup>6</sup> Mean age of menopause is about 3.7 years earlier than average, even when the ovaries are preserved. There is a risk of other complications occurring during and after surgery.<sup>7</sup> In Pakistan the rate of hysterectomy is quite high. One of the reasons for this is not using other treatment options where indicated.<sup>8</sup> The aim of this study was to analyze etiology, and type of hysterectomy performed at a tertiary care hospital. This may help in devising future policies to deal with gynecological conditions.

#### METHODOLOGY:

This was a retrospective analytic study conducted at the Department of Obstetrics and Gynecology Unit III, Bolan Medical College Hospital Quetta. All types of gynecological hysterectomies performed during the last eight years from January 2013 to December 2020 were included in the study. After approval from ethical committee, clinical records of patients regarding age, parity, clinical diagnosis, indication of hysterectomy, type of surgery were collected from case files, operation theater registers and admission registers. Obstetrical hysterectomies were excluded. Descriptive statistics were used. Results were presented in frequency and percentages using Microsoft excel program.

#### RESULTS:

During the study period a total of 2249 gynecological procedures were performed in the Gynecology Unit -III, which included 1383 major surgeries. Out of these major gynecological procedures 942 (68%) patients underwent hysterectomy. These patients were included in this study. A total of 762 (81%) women had abdominal hysterectomy and 180 (19%) vaginal hysterectomy. Among abdominal hysterectomies, total abdominal hysterectomy with bilateral salpingo-oophorectomy was done in 694 (74%) cases, and total abdominal hysterectomy without salpingo-oophorectomy in 32 (3%) cases. Total abdominal hysterectomy with unilateral salpingo-oophorectomy was performed in 19 (2%) patients and subtotal abdominal

hysterectomy in 17 (2%). In 70% of vaginal hysterectomies pelvic floor repair was also done.

The most common age group was 40-49 years in whom hysterectomy was performed. The mean age was 48 years in abdominal hysterectomy group. The most common age group was 50-59 years (40%) and the mean age 56 years in patients who had vaginal hysterectomy (table I). The mean parity was 7.6 in abdominal hysterectomy and 8.2 in vaginal hysterectomy patients. The range of parity was 0-18 (table II). Twenty-three patients were nullipara in abdominal hysterectomy group, out of them four cases were mentally retarded, in their teens and others were between 40-59 years of age.

The most common indication was dysfunctional uterine bleeding in 330 cases (35%) followed by utero vaginal prolapse (n=180 - 9%). Other common indications were fibroid (n=135 -14.3%), chronic PID (n=100 -10.6%) and adenomyosis (n=42 - 4.5%) as shown in table-III.

#### DISCUSSION:

Hysterectomy is the most common gynecological procedure performed in women in peri and postmenopausal period. Internationally hysterectomy rates are highest in the United States and lowest in Norway and Sweden.<sup>1</sup> In our study the frequency of gynecological hysterectomies was 68% in which is comparable with study of Anbreen et al where 66% of all gynecological surgeries were hysterectomies.<sup>9</sup> Similar study conducted in Nepal reported the 59.15% prevalence of hysterectomy.<sup>10</sup> Out of these hysterectomies, 81% were through abdominal and 19% vaginal approach. There are number of other national and international studies where the frequency distribution of surgical procedure for removal of uterus is similar to index study. Abdominal approach is preferred route in all the studies.<sup>11-13</sup>

Majority of the women were grand multipara, with number going up to 18. This is an alarming figure that must be addressed. The mean parity was 7.6

**Table I: Age Groups of Patients with Hysterectomy (n=942)**

Age (years)	Abdominal Hysterectomy (n=762)	Vaginal Hysterectomy (n=180)
<30	7 (1%)	0 (0%)
30-39	66 (8.7%)	4 (2.2%)
40-49	409 (53.7%)	41 (22.7%)
50-59	245 (32%)	72 (40%)
60-69	20 (2.6%)	54 (30%)
>70	15 (2%)	9 (5%)

**Table II: Parity of Patients with Hysterectomy (n=942)**

Age (years)	Abdominal Hysterectomy (n=762)	Vaginal Hysterectomy (n=180)
Nullipara	23 (3%)	0 (0%)
P1-P3	68 (9%)	9 (5%)
P4-P6	230 (30%)	51 (28%)
P7-P9	243 (32%)	72 (40%)
P10-18	198 (26%)	48 (27%)

**Table III: Indications of Hysterectomy (n=942)**

Indication	Number (n)	Percentage
Dysfunctional uterine bleeding	330	35%
Utero-vaginal prolapse	180	19%
Fibroid uterus	135	14.3%
Chronic PID	100	10.6%
Adenomyosis	42	4.5%
PMB	31	3.3%
Benign ovarian cyst	31	3.3%
Ovarian carcinoma	28	3%
Cervical fibroid/polyp	28	3%
Carcinoma cervix	12	1.3%
Endometrial carcinoma	09	1%
Choriocarcinoma	09	1%
Mentally retarded	04	0.4%
Chronic uterine inversion	01	0.1%
Endometriosis	01	0.1%
Endometrial polyp	01	0.1%

in abdominal hysterectomy and 8.2 in vaginal hysterectomy. Similar trend is also reported in another study from Pakistan.<sup>9</sup> Other developing countries like Nigeria also reported the same pattern.<sup>14,15</sup> Majority of the women were grand multipara in that geographical region. The most common age group was 40-49 years in abdominal and 50-59 years in vaginal hysterectomy as reported in other series.<sup>16,17</sup> In a study by Baloach et al the common age group of hysterectomy was 41 to 51 years. Hysterectomy rate peaked at this age group because many of the women complete their family and were either in peri-menopausal or postmenopausal group.<sup>18</sup>

In our study, the most common indication for hysterectomy was dysfunctional uterine bleeding followed by utero-vaginal prolapse. In a study from India the commonest indication of hysterectomy was same.<sup>19</sup> A similar data was reported in a study from Karachi.<sup>20</sup> In other studies DUB was the second most common cause after fibroids.<sup>21,22</sup> In order to reduce the rate of hysterectomy for benign lesions with its associated complications, either medical or less invasive alternative treatments methods like

use of progesterone based intrauterine devices, endometrial ablation, uterine artery embolization may be tried.

Hysterectomy was also performed in few mentally retarded young girls. Our practice has been changed by using levonorgestrel intrauterine system for these young patients for menorrhagia, thus saving their uterus. There is also a need of counselling of perimenopausal women with DUB for use of alternative to hysterectomy. Hangekar et al in their study showed 76.67% overall satisfaction rate among women who used hormone-based devices as this decreased menstrual blood flow in 74.07% cases.<sup>23</sup>

#### **CONCLUSION:**

Dysfunctional uterine bleeding is the commonest symptom in perimenopausal women and most of the hysterectomies were done for this reason. A clear indication must be there for removal of the uterus and conservative approach should be considered first.

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All authors approved final draft & agreement to be accountable.

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