

**Original article**

**Comparative study on specimen of Hysterectomy**

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**Abstract:**

**Background:** Hysterectomy is by far most common gynecological procedure. It is performed in our country for more or less similar indication as those performed in advanced countries. Sometimes clinical diagnosis does not correlate with histopathological findings. **Objective:** To find out the common indication of hysterectomy in tertiary level hospital, to detect the patterns of clinical presentation and to find out the correlation between pre and per operative findings with histopathology reports of specimen. **Method:** This is a cross sectional type of comparative study which was carried out on 150 cases from January 2013 to October 2013 in inpatient department of CMH Dhaka. Cases were randomly selected who were admitted for operative treatment. **Result:** The incidence of total abdominal hysterectomy was 73.33% and vaginal hysterectomy 26.67%. Highest incidence observed among the age group 35-40 year which was 46.66% in the study. The commonest indication of abdominal hysterectomy was Leiomyoma uterus 42.73% and most common symptom was Menorrhagia which was about 44.67% in the study. Leiomyoma uterus hispathologically correlated about 91.49% with clinical diagnosis. During examination it was found that least correlated diagnosis were DUB and PID respectively 70.83% and 73.33%. Ovarian tumor, CIN and chronic cervicitis correlated 100%. In this study, clinical diagnosis, pre-operative finding similar with histopathology finding in 86.36%. **Conclusion:** The indication of hysterectomy in any case must be clearly defined and should be done for which conservative treatment is not likely to be efficacious. But advent of conservative treatment like ablation, mirena IUS are as effective as hysterectomy which can offer the young age group of 35-40 year.

**Keyword:** Hysterectomy, Histopathology

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**Introduction**

Hysterectomy is the complete removal of uterus. When this is done through an abdominal incision it is called abdominal hysterectomy. When the approach is through vaginal vault it is called vaginal hysterectomy.

Hysterectomy is a major gynecological operative procedure, commonly indicated for women with dysfunctional uterine bleeding, uterine leiomyoma, prolapse, endometriosis and adenomyosis, pelvic pain, premalignant condition and cancer<sup>1</sup>.

Hysterectomy is the forth most common operation in the western world, with about 6,50,000 being performed annually in the USA, of which 70% are performed abdominally and 30% by the vaginal route<sup>2</sup>.

The vaginal route has increasingly become the method of choice for hysterectomy. Contraindication of vaginal hysterectomy was usually considered as nulliparity, history of pelvic surgery and excessive uterine size. These criteria have greatly impeded the use of vaginal route and supported a high frequency of abdominal and laparoscopically assisted hysterectomy in women without prolapse<sup>3</sup>. The improved hospital care, availability of blood transfusion, advanced anesthesia and above all the advent of antibiotics has opened up a new era and there by broadened the indications for hysterectomy with minimum post operative morbidity and mortality. However hysterectomy must never be done without proper indication. According to Taylor, hysterectomy should be done when the risk

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**Table-I:** Indications of hysterectomy

| Indications of                            | No of patients (N-150) | Percentage (%) |
|---|------------------------|----------------|
| <b>Abdominal Hysterectomy</b>             | <b>110</b>             |                |
| • Leiomyoma of uterus                     | 47                     | 42.73%         |
| • Dysfunctional uterine bleeding          | 24                     | 21.82%         |
| • Pelvic inflammatory disease.            | 15                     | 13.64%         |
| • Ovarian tumours                         | 10                     | 9.09%          |
| • Adenomyosis                             | 04                     | 3.64%          |
| • Chronic cervicitis                      | 05                     | 4.54%          |
| • Cervical intraepithelial neoplasia      | 03                     | 2.73%          |
| • Endometrial carcinoma                   | 02                     | 1.82%          |
| <b>Vaginal Hysterectomy</b>               | <b>24</b>              |                |
| • Prolapse with chronic cervicitis        | 20                     | 83.33%         |
| • Prolapse with decubitus ulcer           | 04                     | 16.67%         |
| <b>LAVH(less than 12 wks size) uterus</b> | <b>08</b>              |                |
| DUB                                       | 06                     | 75%            |
| Leiomyoma of uterus                       | 02                     | 25%            |
| <b>Non descent vaginal hysterectomy</b>   | <b>08</b>              |                |
| Chronic Cervicitis with lax perinium      | 05                     | 62.5%          |
| DUB with 2nd degree perineal tear         | 03                     | 37.55%         |

**Table-II:** Common clinical presentations according to the incidence in this series: (n=150)

| Clinical presentation                      | No of patients (150) | Percentage (1%) |
|--|----------------------|-----------------|
| Menorrhagia/ menstrual disturbance         | 52                   | 44.67%          |
| Dysmenorrhoea                              | 17                   | 11.33%          |
| Lump in lower abdomen                      | 15                   | 10.00%          |
| Pelvic pain and backache                   | 14                   | 9.33%           |
| Vaginal discharge                          | 08                   | 5.33%           |
| Irregular Per vaginal bleeding             | 07                   | 4.67%           |
| Mass coming out per-vagina                 | 16                   | 10.67%          |
| Urinary complaint associated with prolapse | 09                   | 6.00%           |
| Bowel complaint                            | 05                   | 3.33%           |
| Post coital Bleeding                       | 04                   | 2.67%           |
| Post menopausal bleeding                   | 03                   | 2.00%           |

of preserving the uterus is greater than the risk of removal or when there are disabling symptoms for which, there are no successful medical treatment. Vaginal hysterectomy is advantageous over abdominal hysterectomy in removing uterus weighing <500gm with comparable operating time, less post operative pain and shorter recovery LAVH showed a shorter recovery longer operating time than TAH and a 27% rate of conversion to laparotomy<sup>4</sup>.

In our country, hysterectomies are performed for more or less similar indication as those performed

in advance countries, the only difference being in the evaluation of the patient pre-operatively. We have to diagnose the cases more on the clinical ground rather than modern investigations because of the limited facilities and economical constraint. Even in the clinical assessment there are considerable problem as the patients are mostly illiterate and ignorant. They do not understand the gravity of their symptoms, often attend the doctor late and can not explain their problems without leading questions. As a result the finding often does not correlate with their complaints.

The study has been undertaken to find out the common indications of hysterectomy in our country, to detect the patterns of clinical presentation and to find out the correlation between pre and per-operative findings with histopathology reports of the 150 case studied.

#### **Methodology**

- **Study design:** Cross sectional study
- **Study place:** CMH, Dhaka.
- **Study period:** Jan 2012-Oct 2012
- **Study population:** Cases admitted in the department of gynecology and obstetrics

of CMH Dhaka for operative treatment, 150 cases were randomly selected for the study.

#### • **Inclusion criteria:**

- (a) Patients undergoing hysterectomy for benign Gynecological diseases either by abdominal or by vaginal route.
- (b) Patients undergoing hysterectomy due to CIN, carcinoma in- situ, ovarian malignancy and uterine malignancy.

#### • **Exclusion criteria:**

- (a) Patients undergoing radical hysterectomy for

invasive cervical carcinoma.

(b) Patients undergoing abdominal hysterectomy for emergency obstetric condition like ruptured uterus, uncontrolled post partum hemorrhage.

**Description of the method:**

During the study period, 150 cases were collected from gynae inpatient department of CMH Dhaka. The patients with indications for hysterectomy were selected for the study. A prescribed questionnaire sheet was used to record the information's. The methods were explained to the patients. Further information was obtained by clinical examination, by recording per operative findings during operation and was co-related with clinical findings. Finally the specimen was sent for histopathological examination. Relevant investigations and histopathological reports were recorded accordingly. Informed verbal consent was obtained from the patients for including them in the study.

**Data analysis:**

Data analysis were done using SPSS programme in computer.

**Aim and objective**

**General:**

- To study the pre-operative presentation and per-operative findings of the cases undergoing hysterectomy operation. And to correlate there findings with those of histopathology

**Specific:**

- To enroll the cases admitted for hysterectomy operation.
- To study the pre operative presentation of these cases.
- To record the per-operative findings of these cases.
- To record the histopathological diagnosis of these cases.
- To correlate the pre operative and per operative findings with the findings of histopathology

**Observation and results**

Among indications of abdominal hysterectomy, Leiomyoma of uterus (42.73%) and in vaginal hysterectomy, Prolapse with chronic cervicitis (83.33%) were on the top of the list.

Most of the patients had multiple complaints. The commonest presenting complaint of the patients was excessive menstrual flow (44.67%) 41 cases.

Histopathology findings were correlated with that of clinical diagnosis in 86.36% of cases. Clinical diagnosis and histopathology diagnosis were similar 100% of cases of ovarian tumour, CIN, Chronic

cervicitis and endometrial carcinoma.

Clinical diagnosis was co-relate with histopathology findings and percentage was 87.50.

**Ethical approval:** This study was approved by local ethics committee.

**Discussion**

In the present study an attempt has been made to evaluate, at what extent the clinical diagnosis is consistent with the per-operative findings and correlate that diagnosis with histological examination of the specimen.

In a study by Dicker et al<sup>5</sup> the relationship between clinical diagnosis and histopathology diagnosis were correlated 52%. In the present series clinical diagnosis, per-operative findings were similar to histopathology study in 86.36% cases. The difference between the two series may be due to increased awareness and literacy rate among women and the modern diagnostic facilities available.

The commonest indication for TAH in this series is leiomyoma uterus 42.73% and DUB is the second most common 21.82% indication and then follow the other conditions like PID, endometriosis, ovarian tumor, chronic cervicitis, adenomyosis etc. The incidence of the commonest indications was compared to other studies. The incidence of leiomyoma uterus and DUB were 57% and 38% respectively in the series by Shergill et al<sup>6</sup> and 34% and 38.5% respectively in the series by Vessey<sup>7</sup>. The result differ from the study by Maresh et al which showed DUB being the commonest indication in 46% cases and leiomyoma was the indication in 19% cases.

Regarding symptomatology, it was observed that 44.67% presented with menorrhagia and were suffering from varying degree of anaemia. The result is similar to several other studies. Zeba 52%<sup>8</sup>, Akhter 45%<sup>9</sup>, Shergill et al 60%<sup>10</sup>, Sculpner et al 64%<sup>11</sup>. Analysis of the symptoms dysmenorrhoea came next to menorrhagia.

Out of clinically diagnosed 47 cases per-operative finding was suggestive of leiomyoma uterus in 42 cases, finally 41 cases were confirmed as leiomyoma uterus histopathologically (table III). Among the cases which differed in final diagnosis, 04 cases were proved to be adenomyosis, 01 case DUB and 01 case endometriosis. Another 02 cases which were clinically diagnosed as DUB were later confirmed as leiomyoma uterus by histopathology examination. So leiomyoma uterus was final diagnosis in 43 cases (table III).

Among the 24 cases of clinically diagnosed DUB, 20

**Table III:** Comparison between clinical diagnosis and histopathology findings: (n=150)  
Abdominal Hysterectomy: (n=110)

| Parameters            | Clinical diagnosis | Histopathology findings correlate with clinical diagnosis | Percentage (%) |
|-----------------------|--------------------|---|----------------|
| Leiomyoma of uterus   | 47                 | 43  | 91.49%         |
| DUB                   | 24                 | 17  | 70.83%         |
| PID                   | 15                 | 11  | 73.33%         |
| Ovarian tumour        | 10                 | 10  | 100.00%        |
| Adenomyosis           | 4                  | 4   | 100.00%        |
| CIN                   | 3                  | 3   | 100.00%        |
| Chronic Cervicitis    | 5                  | 5   | 100.00%        |
| Endometrial Carcinoma | 2                  | 2   | 100.00%        |
| <b>Total</b>          | <b>110</b>         | <b>95</b>   | <b>86.36%</b>  |

**Table IV:** Comparison between clinical diagnosis and histopathology findings: (n=150)

| Parameters                             | Clinical diagnosis | Histopathology findings correlate with clinical diagnosis | Percentage (%) |
|--|--------------------|---|----------------|
| <b>Vaginal Hysterectomy (n=24)</b>     |                    |   |                |
| • Prolapse with chronic cervicitis     | 20                 | 20  | 100.00%        |
| • Prolapse with PID                    | 04                 | 03  | 75.00%         |
| <b>Non Descent VH(n=08)</b>            |                    |   |                |
| • Chronic cervicitis with lax perineum | 05                 | 05  | 100%           |
| • DUB with 2nd degree perineal tear.   | 03                 | 02  | 66.67%         |
| <b>LAVH (n=08)</b>                     |                    |   |                |
| • DUB                                  | 06                 | 03  | 50.00%         |
| • Leomyoma of Uterus                   | 02                 | 02  | 100%           |
| <b>Total</b>                           | <b>40</b>          | <b>35</b>   | <b>87.50</b>   |

cases had no apparent organic lesion on laparotomy and 16 cases were confirmed by histopathology examination to have no organic lesion. 01 case of clinically diagnosed leiomyoma uterus was later proved to be DUB as they had no pathology. So, DUB was final diagnosis in 17cases (Table III). Initially 15 cases were clinically diagnosed as PID, and out of these 09 cases were confirmed by histopathology examination. 02 cases of DUB were proved by histopathology to be PID. So, PID was final diagnosis in 11 cases that is 73.33%. The higher incidence of PID in this study is probably due to inadequate medical treatment of the patient. All 10 cases of clinically diagnose of ovarian tumor

were confirmed to be same by pre and per operative and histologically.

All 05 cases of clinically diagnosed chronic cervicitis were confirmed to be the same by histopathology.

Rest of the cases hysterectomy was performed due to adenomyosis, chronic cervicitis, CIN and endometrial carcinoma, clinical diagnosis and histopathology diagnosis were similar in 100% cases.

Uterovaginal prolapse was the indication of vaginal hysterectomy in 60% cases (Table I). In other studies also observed almost similar findings. According to shergill et al<sup>12</sup>, Pokras and Hufnaged<sup>13</sup>

the indication for hysterectomy was 24%, 20.8% and 27% respectively.

**Conclusion**

The indication of hysterectomy in any case must be clearly defined and should be done for which more conservative treatment is not likely to be efficacious.

It should not be performed merely at the request as demand of the patient. It should be the last resort. For women with severe pelvic pain or irregular periods, dysmenorrhoea etc. hysterectomy is a blessing to them as it removes the diseased organ and their entire symptoms are alleviated.

While performing hysterectomy the patient should be counseled properly about the consequences of such procedure, then they accept the cessation of menstruation as normal. Otherwise new complain

will arise and the success of operation is to some extent rendered fruitless.

Several recent therapies such as endometrial ablation with endoscopic technique, myoma coagulation or embolo therapy have been introduced. They are advantageous thus; the need for hysterectomy is declining. All these procedure are alternative to hysterectomy. But where salpingo - ophorectomy is intended, hysterectomy is the choice of treatment. Abdominal hysterectomy could be replaced by vaginal hysterectomy with or without laparoscopic assistance in a number of cases, if there is no contraindication of vaginal hysterectomy, LAVH are advantageous by short period of convalescence and early ambulation. Vaginal hysterectomy is least costly and for LAVH, the indirect cost is less.

***Conflict of interest:*** None declared

**References:**

1. Ottosan C, Lingman G, Ottosen L. *Three methods for hysterectomy : a randomized prospective study of short term outcome.* Br. J. Obstet Gynaecol 2000, **107:1380-1385.**
2. C.J.G. Sutton. *Laparoscopy and Laparoscopic Surgical Techniques: In Dewhurst's text book of Obstetric and Gynaecology for Post graduates.* 6<sup>th</sup> edition. **1999, 60-66.**
3. Aubert Agostini et al. *Vaginal hysterectomy in nulliparous women without prolapsed: A prospective comparative study.* Br. J. Obstet. Gynaecol 2003 (May); **110: 515-518.**
4. Maria. M. Ferrari: et al. *Identifying the indications for laparoscopically assisted vaginal hysterectomy: A prospective randomized comparison with abdominal hysterectomy in patient with symptomatic uterine fibroids.* Br. J. Obstet Gynaecol 2002 (May); **107:620-625.**
5. Dicker RC, Scally M.J. Greenspan JR et. al. *Hysterectomy among women of reproductive age: trends in the United States.* 1970-1978. **JAMA 248:323-7(1982).**
6. Shergill Sk, Shergill H.K, Gupta M, Kaur S. *Clinicopathological study of hysterectomies, J indian Med. Assoc.* 2002 (April) ; 100(4): **238-246.**
7. Vessey MP. Villard – Mackintosh L, McPherson K, Coulter A, Yeats D- *The epidemiology of hysterectomy: Findings in a large cohort study.* Br J Obstet Gynaecol. 1992; **99:402-7.**
8. Zeba D. *Study on clinical presentation, laparatomy findings and histopathological diagnosis of total abdominal hysterectomy performed in BSMMU.* (Dissertation), Dhaka:BCPS; **2003.**
9. Akter S. *Study of 100 cases of abdominal hysterectomy in Comilla Medical College Hospital (Dissertation), Dhaka: BCPS; 2006.*
10. Shergill Sk, Shergill H.K, Gupta M, Kaur S. *Clinicopathological study of hysterectomies, J indian Med. Assoc.* 2002 (April) ; 100(4): **238-246.**
11. Sculpher M J Ewyer N, Byford S, Stirrat GIM- *Randomised trial comparing hysterectomy and transcervical endometrial resection: effect on health related quality of life and costs 2 years after surgery.* BJOG 1996; **142-6.**
12. Shergill Sk, Shergill H.K, Gupta M, Kaur S. *Clinicopathological study of hysterectomies, J indian Med. Assoc.* 2002 (April) ; 100(4): **238-246.**
13. Pokras R, Hufnagel VG. *Hysterectomies in United States.* Vital Health Stat(13) 1987;**92:1-32.**