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AN AUDIT ON INDICATIONS OF HYSTERECTOMIES DONE IN DEPARTMENT OF OBSTETRICS AND GYNAECOLOGY, CHAMARAJANAGAR INSTITUTE OF MEDICAL SCIENCES, CHAMARAJANAGAR

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Abstract

Background: Hysterectomy is the commonest major surgical procedure performed in gynaecology. It is important to conduct audit on hysterectomy to bring down rate of hysterectomies and to avoid unnecessary hysterectomies. **Methods:** It is a retrospective study. A total of 437 cases who underwent hysterectomy were studied over a period of 1year from January 1st 2022 to December 31st 2022. **Objective:** To evaluate the indications of hysterectomy and histopathological analysis of hysterectomy specimens for confirmation of preoperative diagnosis and to assess the pattern of lesions common in uterus and adnexae in the study population. **Results:** A total of 437 cases were studied. The peak age group of hysterectomy was 41-50 years with 225(51.49%) cases. The most common indication was fibroid uterus (289, 66.13%). The commonest route of hysterectomy was abdominal (370,84.67%). The most common endometrial finding was proliferative endometrium seen in 199(45.54%) cases. The most common pathology in myometrium was leiomyoma seen in 270(61.78%) cases. The most common pathology in cervix was chronic cervicitis seen 245(56.06%) cases. **Conclusion:** There is a need for shifting the route of hysterectomy from abdomen to vaginal route as complication rate is low in Vaginal route. Educating the patient regarding the non- surgical and less invasive

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management options available for benign conditions and about the sequele of hysterectomy to bring down the rate of hysterectomy.

Keywords: Abdominal hysterectomy, Vaginal hysterectomy, Leiomyoma, Adenomyosis,

Introduction

Hysterectomy is the second most common gynaecological procedure done among women after cesarean section[1]. Hysterectomy is done for both benign and malignant conditions, while it is curative for malignant cases, options of medical and uterine conservative surgical procedures are available for benign cases. Even though there is considerable improvement in medical management and uterine conservative procedures in present era like uterine artery embolization and Magnetic Resonance guided High intensity focused ultrasound (MRhifu) for management of AUB, patient still prefer hysterectomy due to better result and financial constraints.

Although it is one of the most common surgical procedures, it is associated with risk of iatrogenic premature menopause, surgical complications, and anaesthesia complications. The aftermath includes increased risk of diabetes mellitus[2], Hypertension[3] and osteoporosis[4]. Considering the complications associated with the hysterectomy procedure, indication for the procedure should be justified before considering for the hysterectomy. Hence an audit on hysterectomy is important to evaluate the indications of hysterectomy and histopathological analysis of hysterectomy specimens for confirmation of preoperative diagnosis, to plan postoperative treatment and to assess the pattern of lesions common in uterus and adnexae in the study population. Histopathological analysis helps us to identify the missed pathology like malignancy and establish definitive cause of several abnormal uterine bleeding cases.

Present study was conducted in our tertiary care centre to audit hysterectomy cases to analyse indications for hysterectomy and common histopathological findings.

Materials and Methods

This study involved all patients who underwent hysterectomy at Chamarajanagar Institute of Medical Sciences, Chamarajanagar, Karnataka over a period of one year from 1st January 2022 to 31st December 2022.The study was approved by Institutional ethical committee board.

Case records were collected from medical records department for analysis.

Inclusion criteria:

- All cases of abdominal and vaginal hysterectomies were included.
- Abdominal hysterectomies included Total Abdominal Hysterectomy (TAH), Total abdominal hysterectomy with unilateral salphingo Oophorectomy (TAH + USO), Total abdominal hysterectomy with bilateral salphingo oophorectomy (TAH+BSO)
- Vaginal hysterectomy included Vaginal hysterectomy with pelvic floor repair (VH with PFR) for uterovaginal prolapse cases.
- Vaginal hysterectomy without pelvic floor repair (VH) and non descent vaginal hysterectomy (NDVH) done for indications other than uterovaginal prolapse

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Exclusion criteria:

- Women who underwent peripartum hysterectomy for obstetric indication.

Case records were reviewed to collect information of patient characteristics like age, parity, indication for hysterectomy, type of hysterectomy and histopathological report. The histopathological findings of endometrium, myometrium, cervix, ovaries and fallopian tubes were recorded.

STATISTICAL ANALYSIS

Statistical analysis was carried out by using SPSS v.20.0. Descriptive statistics such as mean, number, percentage were observed.

Results

A total of 437 hysterectomies were performed during the study duration i.e from January 1st 2022 to December 31st 2022. The age ranged from 25 to 80 years. The mean age was 44.66 years. The most common age group which underwent hysterectomy was 41-50 years with 225 (51.49%) cases followed by 31-40 years age group with 143(32.72%) cases. The commonest route of hysterectomy was abdominal with 370 (84.67%) cases. 362(82.84%) cases belonged to rural population and 75(17.16%) cases belonged to urban population. Incidence of hysterectomy was found high in multiparous women with 390(89.2%) cases and 47(10.8%) cases were nulliparous women.

Table 1: Age wise distribution of hysterectomy cases

Age (in years)	**No. of cases**	**Percentage**
21-30	8	1.83
31-40	143	32.72
41-50	225	51.49
51-60	46	10.53
61-70	13	2.97
>71	2	0.46
Total	**437**	**100**

Table 2: Distribution according to route of hysterectomy

Route of hysterectomy	**No.of cases**	**Percentage**
Abdominal	370	84.67
Vaginal	67	15.33
Total	**437**	**100**

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Table 3: Demographic distribution of Hysterectomy cases

Demographic area	No.of cases	Percentage
Rural	362	82.84
Urban	75	17.16
Total	**437**	**100**

Table 4: Distribution according to parity index

Parity Index	No.of cases	Percentage
Multipara	390	89.20
Nullipara	47	10.80
Total	**437**	**100**

The most common indication for hysterectomy was fibroid uterus with 289 (66.13%) cases followed by uterovaginal prolapse with 65 (14.87%) cases.

Table 5: Indications for Hysterectomy

Indication	No.of cases	Percentage
Fibroid	289	66.13
DUB*	30	6.86
UV Prolapse	65	14.87
Fibroid with UV prolapse	2	0.46
Adenomyosis	20	4.58
Endometrial Hyperplasia	6	1.37
PID	2	0.46
Postmenopausal bleeding	2	0.46
Ovarian cyst	21	4.81
Total	**437**	**100**

*DUB – Dysfunctional Uterine Bleeding

Among endometrial lesions, most common finding was proliferative endometrium seen in 199(45.54%) cases. Other endometrial findings observed were secretory phase endometrium, senile cystic atrophic endometrium, endometrial polyp, simple hyperplasia, disordered proliferative endometrium and endometrial cancer.

Table 6: Histopathological findings of endometrium

Endometrial lesions	No.of cases	Percentage
Proliferative	199	45.54
Secretory	124	28.38
Disordered proliferative	9	2.06
Senile cystic atrophy	71	16.25

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Endometrial polyp	6	1.37
Simple hyperplasia	27	6.18
Endometrial cancer	2	0.22
Total	**437**	**100**

Among myometrial lesions, leiomyoma was the most common finding seen in 270(61.78%) cases. Other findings were leiomyoma with adenomyosis, adenomyosis only,endometrial cancer invading myometrium and monckeberg's calcification.

Table 7: Histopathological findings of myometrium

Myometrial lesions	**No.of cases**	**Percentage**
Leiomyoma only	270	61.78
Adenomyosis only	21	4.81
Leiomyoma with adenomyosis	19	4.35
Unremarkable	125	28.6
Monckeberg's calcification	1	0.23
Endometrial ca invading myometrium	1	0.23
Total	**437**	**100**

Among cervical lesions, chronic cervicitis was the most common pathology seen in 245(56.06%) cases. Other cervical pathology observed were chronic polypoidal endocervicitis, chronic papillary endocervicitis, squamous metaplasia, CIN I and non keratinizing squamous cell carcinoma of cervix.

Table 8: Histopathological lesions of cervix

Cervical lesions	**No.of cases**	**Percentage**
Unremarkable	74	16.93
Chronic cervicitis	245	56.06
Chronic polypoidal endocervicitis	55	12.59
Chronic papillary endocervicitis	21	4.81
Squamous cell metaplasia	38	8.7
CIN I	3	0.68
Non keratinizing squamous cell carcinoma of cervix	1	0.23
Total	**437**	**100**

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Discussion

Many benign and malignant diseases affect uterus. Now new treatment options like oral hormone pills, Levonorgestrel Intrauterine System (LNG IUS), endometrial ablation, uterine artery embolization etc are available for conservative management of benign diseases of the uterus. When these conservative measures fails then the individual may require hysterectomy.

Hysterectomy is indicated when the risk of preserving the uterus is greater than the risk of its removal or when medical treatment is not successful in relieving the disabling symptoms[5].

In this study out of 437 hysterectomies, abdominal route was used in 370(84.67%) cases and vaginal route in 67 (15.33%) cases. Most common route of hysterectomy was abdominal route. This finding was comparable to other studies conducted by Sivapragasam V et al where abdominal route was used in 82% of cases and vaginal route was used in 18% of cases[6].

In the present study, out of 437 cases, most common age group who underwent hysterectomy was 41-50 years with 225 (51.49%) cases which is comparable to the findings of study conducted by Sivapragasam V et al[6] and Bhugra P et al[7].

In this study, Most common indication was fibroid uterus(289, 66.13%) which is comparable to the findings of study conducted by Sumanashree Mallappa et al[8] (63.87%).Next common indication was UV prolapse (14.87%).

Histopathology of endometrium: Proliferative endometrium was the most common endometrial finding in the present study, noted in 199(45.54%) cases. This finding was comparable with the studies done by Sivapragasam V et al[6] which showed 41% cases of proliferative endometrium and Sumanashree Mallappa et al[8] which showed 44.12% cases of proliferative endometrium. Secretory phase endometrium was found in 124 cases, senile cystic atrophy in 71 cases, endometrial hyperplasia in 27 cases and endometrial ca in 2 cases.

Leiomyoma (270 cases, 61.78%) was the most common histopathological finding noted in this study which is comaparable to the study done by Sumanashree Mallappa et al[8] (61.34%). Histopathology of myometrium was unremarkable in 28.6% cases, adenomyosis in 4.81% cases.

Chronic cervicitis was the most common pathological change noted in ectocervix (245, 56.06%). This was comparable to study conducted by Sumanashree Mallappa et al[8] which showed 55.88%. CIN noted in 3 cases and non keratinizing squamous cell cancer of cervix was found in 1 case.

Conclusion: There is a need for shifting the route of hysterectomy from abdomen to vaginal route as complication rate is low in Vaginal route. Educating the patient regarding the non-surgical and less invasive management options available for benign conditions and about the sequele of hysterectomy to bring down the rate of hysterectomy. Newer treatment options like oral hormone pills, Levonorgestrel Intrauterine system, endometrial ablation, operative hysteroscopy and laparoscopy should be made available in public hospital set up so that more women will be benefitted.

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