

AUDIT ON HYSTERECTOMIES DONE IN PUMHS TERTIARY CARE.

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ABSTRACT:

BACKGROUND: Trend of hysterectomy varies geographically but still considered as one of most frequently performed surgical procedure worldwide. Uterus should never be assumed as vestigial viscera once desired fertility is obtained. Being a major surgery this is not without risk and in account of newer treatment options, indication must be justified. **OBJECTIVE:** To audit on indication, complication and justification of hysterectomies done in PUMHS tertiary care Centre. **STUDY DESIGN:** Observational study. **SETTING:** Department of Obstetrics and Gynecology Unit 1 People University of Medical and Health Science Shaheed Benazir Abad. **DURATION OF STUDY:** One year from 1st January 2019 to 31st December 2019. **METHODOLOGY:** This study is done on patients admitted for elective hysterectomies in one-year duration, in PUMHS Tertiary care setting. These studies include all women decided for hysterectomy for benign conditions except obstetrical hysterectomy. Variables like age, parity, inhabitance, marital status, clinical presentations, indications, type and route of procedure, complications, ovarian preservation and histopathology findings noted and surgery justified if histopathology seems significantly abnormal. Data entered and analyzed on SPSS version 20. **RESULT:** In 2019 total 127 hysterectomies done suggest 6.2% incidence, 19 patient lost from follow up while 106 cases included in study. Most common age was 41 to 51 years with mean 51 observed. Majorities were married, had more than 5 children and were resident of rural areas. Majority presents with POP (pelvic organ prolapse) and menstrual irregularities. Common complications were minor (fever and UTI). Surgery justified in 89.6% of cases. **CONCLUSION:** Women aged between 41 to 51 years were mostly underwent surgery. Most frequent indication was POP, next common menstrual irregularities due to fibroid, adenomyosis and pelvic inflammatory diseases. Abdominal approach most of the time used, vaginal route for only POP indication. Common complication observed infective sequel. Though justified in 89.6% of the cases but being major surgery with associated risk alternative options must offered.

KEY WORDS: Hysterectomy, Audit, Obstetrics and Gynecology, Justification

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HOW TO CITE THIS ARTICLE: Baloach RA¹, Wagan F², Aslam U³, Jabbar AA⁴, Memon N Y⁵, Joyo Y⁶. **AUDIT ON HYSTERECTOMIES DONE IN PUMHS TERTIARY CARE. JPUMHS; 2021, 11(02);61-65.**
<http://doi.org/10.46536/jpumhs/2021/11.02.294>

Received Mon, Feb 1, 2021, Accepted On 15TH June 2021, Published On 30TH June 2021.

INTRODUCTION

Hysterectomy, the merely operating dealing for HMB that guarantee amenorrhea, rank on the top of the surgeries, next to caesarean section in developing regions^{1,2}. Same was the finding in previous dates for developed countries³ as U.S had record of performing 600000 hysterectomies in each year and every 1 in 5 women was at risk of hysterectomy at any point in her life in UK⁴. But with passage of time decreasing trend is observed in western areas⁸

Most common indication worldwide is abnormal uterine bleeding⁵ (AUB) in reproductive age group (15-49 years by WHO⁶). AUB is newer terminology for dysfunctional uterine bleeding suggested by FIGO (International Federation of Gynecology and Obstetrics) in 2011⁵, and causes explained in acronym PALM-COEIN (polyp, adenomyosis, leiomyoma, malignancy

and hyperplasia-coagulopathy, ovulatory, endometrial, iatrogenic and not otherwise classified). FIGO further added algorithms to help out practitioner in investigating a patient and included fibroid sub classification based on ultrasound parameters in 2018⁷.

Current NICE guidelines⁹ do not suggest hysterectomy as first line treatment for AUB rather must advised to offer different hormonal, non-hormonal strategies as well as certain less invasive treatments in form of endometrial ablation, uterine artery embolization and progesterone releasing intra uterine preparations prior to deciding this major surgery. NICE suggest to discuss the significant implication of hysterectomy, before the decision of surgery is made (examples are impact on fertility, sexual feeling, bladder function, need of further

treatment, complications, alternative options, her expectations and psychological impacts). In developed countries, priority is given to minimally invasive treatments options and to laparoscopic and robotic approaches of hysterectomy¹⁰.

A woman before experiencing hysterectomy should be cognizant of penalties as infertility, menopause, sexual dysfunction and psychosocial issues². Evidence based complications are hemorrhage, injury to adjacent viscera, infective consequence to wound, vault, urinary tract and lungs^{11,12}. Currently Cochrane review revealed hysterectomy is linked with higher snags but also higher fulfilment rate with improved symptomology of AUB as compare to ablative procedures¹³.

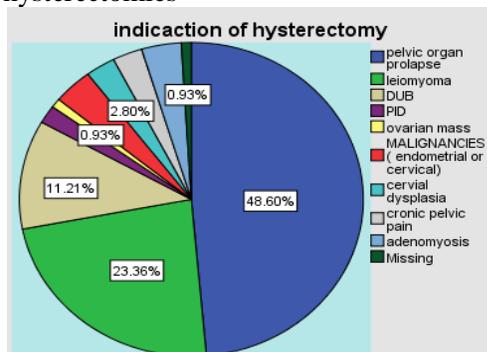
Incidence of hysterectomy is wavering now a day from corner to corner of the world. 20.7/1000 women incidence is seen in India² comparatively higher than seen in western countries (United States 5.1/1000, Germany 3.6/1000 and Australia 4.7/1000^{14,15,16}

Decreasing trend in developed⁸ whereas increasing trend of hysterectomy is seen in developing countries like Pakistan and India. A study done in Pakistan showed increased frequency from 7% in 2013 to 17% in 2016¹⁷. Studies from India also show the escalating picture^{2,18}

Despite of hysterectomy hazards and present alternative treatment options, incidence of hysterectomy is seems to be rising in developing countries and is frightening. Audit is necessary to limit this chain. Current study is aimed to audit indication, complication and justifying the surgery by relating preoperative diagnosis with histopathology reports in tertiary care hospital. This type of evaluation might be supportive in endowment of quality reassurance and correctness of hysterectomy.

METHODOLOGY:

This is a one-year study done on 127 patients admitted in duration from 1st January to 31st December 2019 and who go through hysterectomy on platform of obstetrics and gynecology unit 1 PUMHS. Study approved by institutional ethical board and included all the women decided by consultants for hysterectomies in this duration. Because of loss of follow up from 19 patients, only 106 candidates were included in study. Obstetrical hysterectomies were

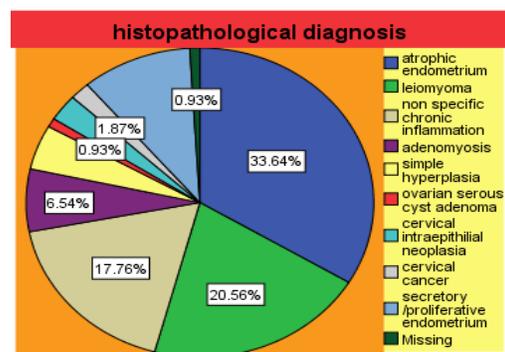


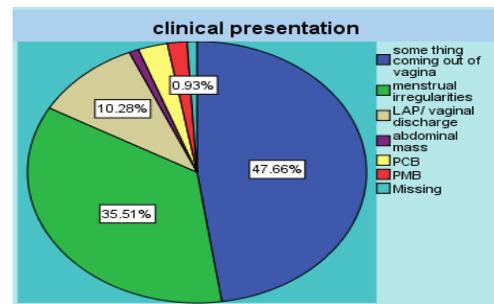
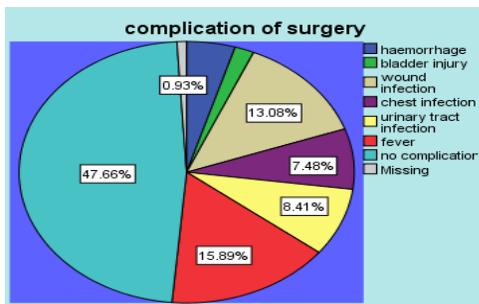
excluded. Parameters as age, marital status,

parity, inhabitation, clinical presentation and indications, type and route of surgery, problems encountered during surgery, ovarian removal or not, histopathology findings and finally justification of surgery observed, recorded on pre designed structured questionnaire. Data put on SPSS version 20 IBM statistical software and analyzes done. Case was justified if histology report confirms the indication or found to be pathological. Mean calculated for continuous variable as age. Age also categorized into age groups and frequency and percentages deliberated. All other variable being categorical, analyzes done via frequency and percentages measures.

RESULT:

2019 total 2040 patients admitted for gynecological disorders. 127 subjects underwent hysterectomy. 19 patients lost from follow up visits so 106 patients included in study. Mean age was 51 years and mostly (57.6%) were in age group from 41 to 51 years; with minimum 29 and maximum 72years' age recorded. 67.9% had more than 5 kids. 67.9% of candidates belonged to rural areas. Patient mostly present with something coming out of vagina (48%) secondly with irregular menstrual bleeding (35.8%). Most common indication made POP (pelvic organ prolapse) in 49%, 2nd common symptomatic leiomyoma (23.6%) and least common was ovarian mass (0.9%). Patients diagnosed with POP were operated vaginally and rest abdominally. Ovaries preserved in 47.2% (mostly in vaginal procedures) while cervix not removed in 12.3% in abdominal surgeries (mostly because of dense adhesions and by candidate wishes). No any complications observed in 48% while 8.5% present with urinary tract infections, 7.5% with chest infections, 13.2 with serous discharge from wound line, bladder trauma in 1.9%, 4.7% faced intra-operative hemorrhage with no any life threatening situation aroused.No injury to gut and urethra observed. Histological finding were abnormal in 89.6% and thus surgery justified among these figures. Atrophic tissue utmost commonly seen on histology (34%), leiomyoma next common(20.8%), and nonspecific inflammatory cells seen in 17.9% of cases, adenomyosis in 6.6%, simple endometrial hyperplasia without atypia in 4.7% where as normal proliferative and secretory endometrium appreciated in 10.6% of specimens.





DISCUSSION

We found mean age of hysterectomy 51 years and age group 41 to 51 years is common who underwent this procedure. Same assessment is seen in study done by Pandey D¹² et al where same time of life observed that is 48 years and by Pranita¹⁹ et al and Shahid R²⁶ where common age group of hysterectomy was seen as 40-49 years while mean age was 40±6 years. Some other studies also declare 4th decade of life being commonest for hysterectomy as study by Rajora P²⁰ et al showed mean age 42 years and Sirpurkar²¹ et al showed mean age 46 years where as some works reported fifth decade is the commonest age^{22,23,24,27}.

In our study common indication is POP, and this pathology usually occur with rising age this may reflect fourth or fifth decade as more frequently occurring age. In this study patient presented with utero-vaginal prolapse were operated vaginally, rest abdominally. Laparoscopic approach is not used in any patient. Almost half of surgeries done via vaginal route this are because 48% of cases had indication of utero-vaginal prolapse. Comparatively other studies declared increased proportion of abdominal approaches than vaginal^{12,20,24,25,27,28}. This is because of the reason that main indication in such studies was menstrual irregularities or fibroid rather than prolapse. Keeping in view benefit risk ratio, vaginal method is safer than abdominal and laparoscopic style is superior to open approach. Less 1. Blood loss, 2. Hospital stay, 3. Drop in hemoglobin level, 4 febrile episodes, wound infection and unspecified infection, 5. post operated pain, 6. Recovery times are some pros of laparoscopic technique while injuries to adjacent viscera, increased cost, surgical skills on the other hand are some cons. At the time of study this technique is not in use of institution.

Because of Lack of other efficient treatment possibilities, including uterine artery embolization, endometrial ablation, levonorgestral releasing intra-uterine systems, offer to patients not done. Menstrual disorders was presenting symptom in women experienced abdominal hysterectomy and mostly fibroid was reason behind this presentation. Patient also diagnosed with pelvic inflammatory disease and AUB who present with complain of menstrual irregular pattern. AUB constitute main bulk of indication from corner to corner of world^{29,30,31}. A study conducted in United States³² also declared that one third of women is suffered by AUB in some point in their life. Hormonal fluctuations were also a major justification behind this disorder in such a part of life.

Similar to our research, fibroid is major finding on histopathology report among subjects present with non-descended uterus in some studies^{8,27,31,33} and atrophic changes are seen 34% of the sample of descended uterus. This is contrary to finding seen in India³⁴ where adenomyosis was leading cause. In our study adenomyosis was pre-operative diagnosis in 3.8% of candidate and proved in 6.6% on histological assessment. Same is seen in study conducted by Tiwani et al³⁷ and by Siwatch et al³⁸ where preoperative diagnosis of adenomyosis missed This is because this is diagnosed merely on clinical suspicion. Improved clinical suspicion and sophisticated investigation by skilled personal is required for avoiding missed diagnosis. Though transvaginal ultrasound is said to be valuable but MRI is significantly specific for pre-surgical diagnosis. Considering its cost, cannot be offered routinely. Prolapse was commoner than fibroid in our study as present in 48% of patients while study from India³³ document 37.5%, by United States³⁵ 20% and somewhere in Pakistan³¹ 24%.

About 40% of participant has developed complications but of minor types. Febrile illness (including fever, UTI, wound infection and chest infection) contribute to bulk of illness. Mortality is not seen in one year period. However iatrogenic trauma to bladder happened in 2 patients and both were operated abdominally. Abdomen route is more likely to be infected in our study as compare to vaginal. In efforts to reduce morbidity should consider improved surgical art, ensured antibiotic prophylaxis with infection control measures, less extensive surgeries and adding laparoscopic input.

Incidence of hysterectomy is 6.2% seen in our research, while magon et al brief the hysterectomy to be most used, misused, under used and rather abused in different time scale in practice of Gynaecology³⁶. This always be an interested topic of discussion due to its great impact on physical, sexual, emotional and economical aspects. In our setup with non-availability of newer options hysterectomy is foremost step in cases refractory to medical treatment and sometime considered to be lifesaving procedure. Pakistani women are living in area where anemia is prevalent owing to a list of reasons (multi parity, less birth spacing, poor nutrition, worm infestation, cultural and social norms). Usually these persons neglect themselves and take proper consultation very late. Patient education, provision of sophisticated investigation and incorporation of recent treatment modalities could avoid unnecessary surgeries or step up

towards early decision if hysterectomy deemed unavoidable.

CONCLUSION

Thought surgery justified in 89.6% of the cases after co-relating pre-operative diagnosis to post-operative histologic reports but availability of alternative procedures and morbidity associated morbidity linked with hysterectomy cannot be ignored. Still these surgeries can be avoided with sensitive pros and cons counselling with other conservative options. This type of audit could be helpful, in enhancing knowledge, abolishing mal practicing, improvement of quality of health services, uncovering the unmet need for continued medical education and incorporation of advanced technologies in making treatment plans which would provide cost effective and efficient alternatives to hysterectomy.

ETHICS APPROVAL: The ERC gave ethical review approval

CONSENT TO PARTICIPATE: written and verbal consent was taken from subjects and next of kin

FUNDING: The work was not financially supported by any organization. The entire expense was taken by the authors

ACKNOWLEDGEMENTS: We would like to thank the all contributors and staff and other persons for providing useful information.

AUTHORS' CONTRIBUTIONS: All persons who meet authorship criteria are listed as authors, and all authors certify that they have participated in the work to take public responsibility of this manuscript. All authors read and approved the final manuscript.

CONFLICT OF INTEREST: No competing interest declared.

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