Incidence of Hysterectomy in Tertiary care center: An Audit based Retrospective Study

ABSTRACT

Background: Hysterectomy involves partial or complete removal of the uterus. In India, the exact health status in hysterectomy surgery is not clear which is due to the lack of information in large-scale health surveys at the national level. This study is designed to review the safety and efficacy of different methods used in hysterectomy procedures.

Method: A retrospective study was done between May-2021 to July-2021 on women with hysterectomy surgery. In this study 30 cases of different hysterectomies namely Total Abdominal hysterectomy (TAH), laparoscopic-assisted vaginal hysterectomy (LAVH), total Laparoscopic hysterectomy (TLH) and Vaginal Hysterectomy (VH) were included and their clinical presentations, indications and complications were studied.

Results: This study revealed that most of the hysterectomy were carried out between 40-50 years of age and abnormal uterine bleeding with fibroid uterus was found as the common indication for hysterectomy in a total of 14 cases. Moreover, hysterectomy by Laparoscopic route is observed as the safe method as there were no post-operative complications recorded in all 22 cases.

Conclusion: Finally, this study revealed that hysterectomy should be done under the supervision of trained and experienced surgeons with good hospital facility which helps in the fast recovery of cases and also decrease the post-operative stay in hospitals.

***Keywords**: Hysterectomy*, *Indications*, *Method*, *post-operative complications*

1. INTRODUCTION

Hysterectomy is described as a surgical procedure that involves partial or complete removal of the uterus and is considered the second most frequent surgical procedure after cesarean [1, 2]. This surgical procedure is used for the treatment of several gynaecological problems such as adenomyosis, cancer of the cervix or ovaries & uterus, chronic pelvic pain, dysfunctional uterine bleeding, endometriosis, fibroids and uterine prolapse [1-4]. The surgical procedure exerts several positive impacts on women's health such as decreased anxiety and depression which lead to an upsurge in both physical as well as physiological conditions of women after 6- 12 months of surgery [5]. However, it also showed a number of adverse effects on women such as urinary incontinence, sexual dysfunction, backache, weakness, earlier onset of menopause, increased risk of osteoporosis and cardiovascular disorders, etc. The incidence and prevalence of hysterectomy vary with different geographic locations which might be due to the differences in uterine pathology, socio-cultural status, medical facilities and practices [6, 7].

In India, approximately 11 in 100 women between 45-59 years of age have undergone this operation every year [4]. Its prevalence varies between 1.7-9.8% which is lower than the other

countries [2, 4, 6, 8]. However, as per the various media reports, the unusual increment in the cases of hysterectomy was recorded from the different geographical locations of India. Furthermore, the exact status such as the number of cases and impact on health is not clear in India which is mostly due to the inadequate information available in large-scale health surveys at the national level. Only the fourth National Family Health Survey (NFHS-4) first time collected information on hysterectomy and reported certain reasons as well as the health status of women after this surgical procedure [4]. Thus, the present study is designed to review the safety and efficacy of different methods used in hysterectomy procedures by analyzing different factors such as patient demographics, intraoperative and postoperative complications and length of stay in the hospital.

2. MATERIAL AND METHODS

A retrospective study was done between May-2021 to July-2021 in the Obsterics and Gynaecology Department of SSB Heart and Multispecialty Hospital, Faridabad, Haryana, India. In this study 30 cases of different hysterectomies namely Total Abdominal hysterectomy (TAH), laparoscopic-assisted vaginal hysterectomy (LAVH), total laparoscopic hysterectomy (TLH) and Vaginal Hysterectomy (VH) were included and their clinical presentations, indications and complications were studied. Before participation in this study, all patients signed an informed written consent form and conducted it with permission from the local ethical committee of the respective Hospital.

3. RESULTS

3.1. Demographics pattern of hysterectomy

On the basis of age, cases are divided into 4 groups i.e. <40, 40-50, 50-60 and >60, among them, a maximum number (15 cases or 50%) were recorded in the 40-50 year age group while the minimum number i.e. 3 cases or 10% were found at >60 age group (fig. 1 and table 1). Moreover, under the age group <40, a total of 8 cases were subjected to hysterectomy out of which only 2 surgery were done between the age of 36 and 37.

Table 1. Demographic pattern of hysterectomy

Age group	Frequency	Percentage
<40	8	26.67%
40-50	15	50%
50-60	4	13.33%
>60	3	10%

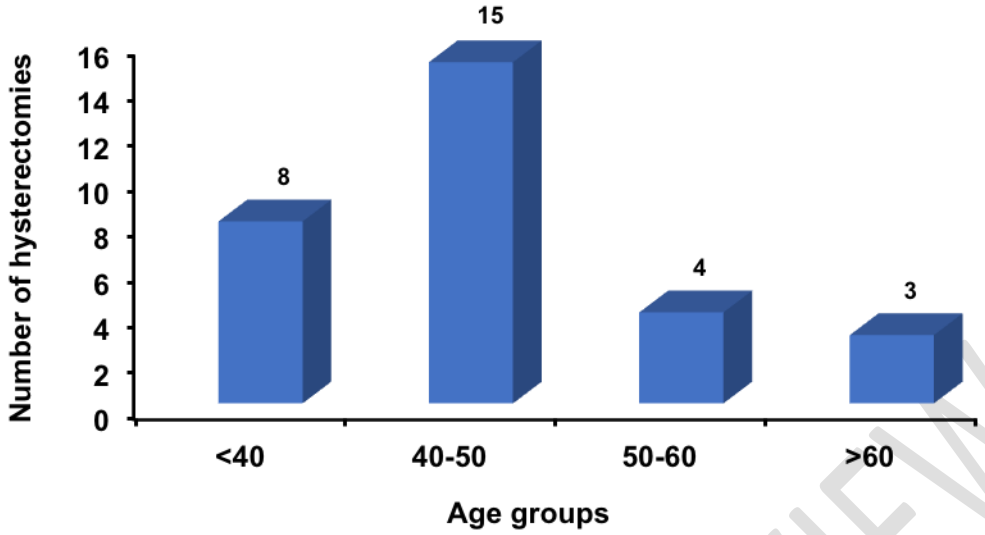

Fig. 1. Number of hysterectomies in the different groups

3.2. Indication

Abnormal uterine bleeding (AUB) with fibroid uterus was found as the most common indication of hysterectomy followed by the other indications like Abnormal uterine bleeding (AUB) with adenomyosis. A total of 14 cases were found to have AUB with fibroid uterus while only 5 cases were observed with AUB and adenomyosis (Fig. 2).

Vaginal hysterectomy was done for patient with genital prolapse.

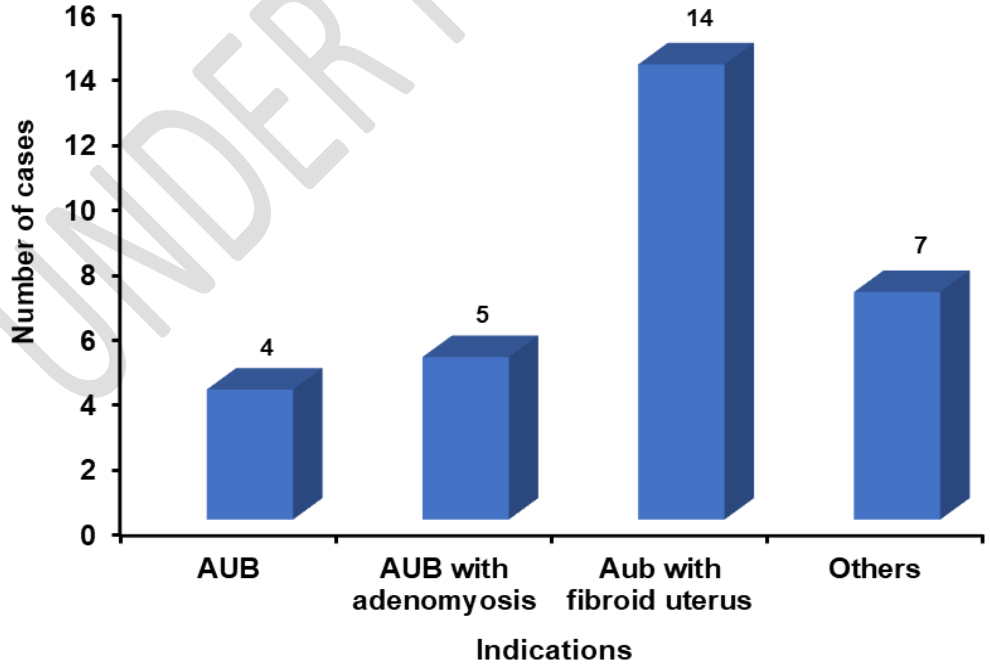

Fig. 2. Number of Indications of hysterectomies

3.3. Method of hysterectomy

The total Laparoscopic hysterectomy (TLH) with 22 cases was found as the most common method of hysterectomy followed by total abdominal hysterectomy (TAH) and laparoscopic-assisted vaginal hysterectomy (LAVH) i.e. 3 and 4 cases, respectively. On the other hand, only 1 surgery was done by using vaginal hysterectomy (VH) (Fig. 3).

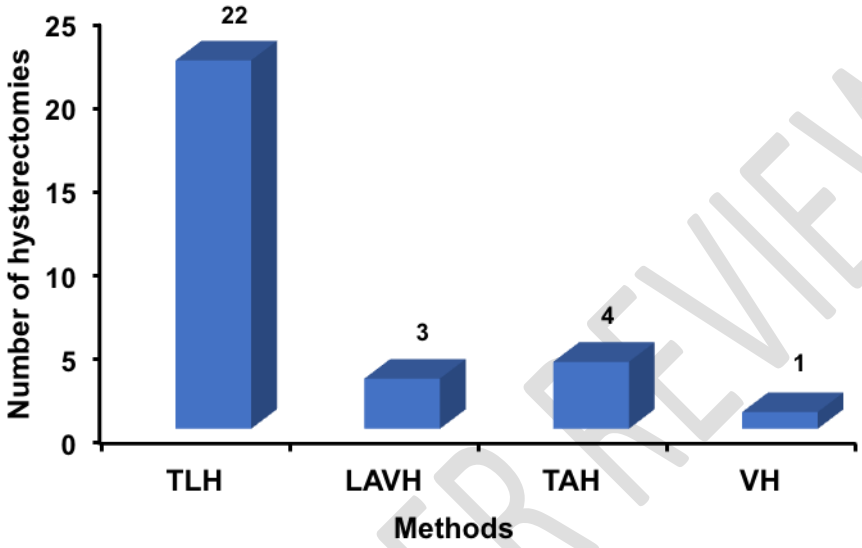

Fig. 3. Method of hysterectomy (TLH= Total Laparoscopic hysterectomy, LAVH= laparoscopic-assisted vaginal hysterectomy, TAH= total abdominal hysterectomy, VH= Vaginal Hysterectomy)

3.4. Complications and Hospital stay

None of the cases showed any complications such as bladder, ureter and bowel injuries after the hysterectomy (Table 2). Moreover, most of the cases stayed in hospital only for 2 days after the surgery followed by 3 and 4 days (Fig. 4).

Table 2. Complications involved with the hysterectomy.

Complications	Percentage (%)
Conversion to laparotomy	0%
Bladder injury	0%
Ureter injury	0%
Bowel injury	0%
Return to theatre	0%
Mean hospital stay	2 days
Readmission rate	0%

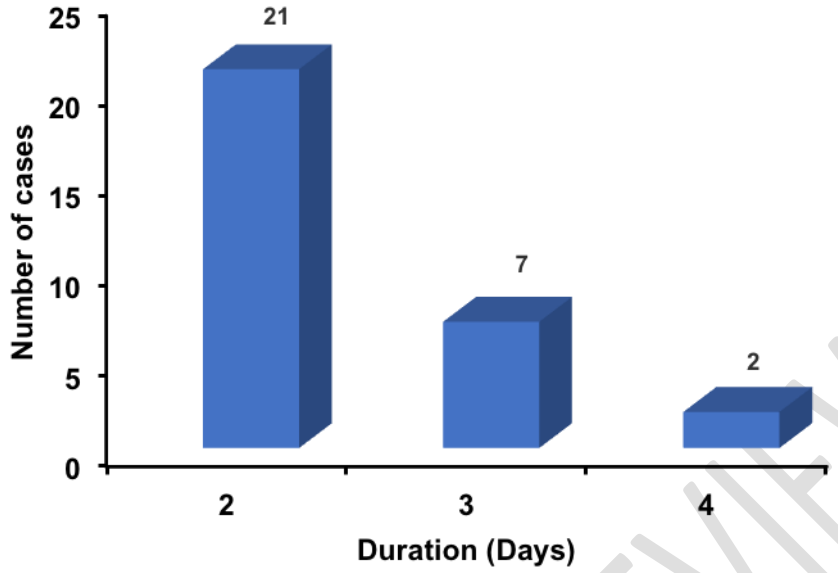

Fig. 4. Duration of post-operative stay of hysterectomy cases

4. DISCUSSION

Hysterectomy is one of the major surgical procedures done on women. And approximately 75% of surgery is carried out between 20 to 49 years of age [9, 10] . The present study showed that a higher incidence of hysterectomy was found between the age of 40 to 50 years. A similar age group was also found for hysterectomy procedures in a number of studies [4, 11, 12].

In the present study, abnormal uterine bleeding (AUB) with fibroid uterus was found as the common indication for hysterectomy. This study also revealed that the fibroid uterus is the common indication involved in this procedure [10, 11, 13]. However, the rate of abnormal uterine bleeding is similar to the study conducted in the USA [14]. This study revealed that most of the cases were operated through the laparoscopic route and similar finding was also reported in a various study [10, 13]. The laparoscopic procedure is recognized as the “minimally invasive” practice in hysterectomy because it does not require a large incision in abdomen and, associated with shortened period of hospitalization and fast postoperative recovery as compared with open abdominal hysterectomy. Hence it can be used as the alternative method to open abdominal hysterectomy [15].

The post-operative stay and complications study revealed that there were no side effects recorded after this surgical procedure and all complication categories were found under the standard defined in Ramdhan et al [16]. This might be due to the surgery performed by experienced medical practitioners with a well-equipped hospital facility that offers minimal complication rates and shorter post-operative hospital stay.

5. CONCLUSION

The present study concluded that the age group between 40-50 years has a high incidence of hysterectomy in India which is due to abnormal uterine bleeding with fibroid uterus. Additionally, the laparoscopic route of surgery is the found best route for this surgery with a negligible adverse effect on the health of women. Further, to assure the safety and efficacy of laparoscopic route of surgery a study with large sample size and long duration should be accompanied in future. Moreover, hysterectomy carried out under the supervision of trained and experienced surgeons with good hospital facilities such as the availability of modern hospital technology, devices, and support system helps in the fast recovery of cases and also decrease the post-operative stay in hospitals. Finally, Gynecologists should try to do laparoscopic hysterectomies as it is directly correlated with patient comfort and less morbidity.

ETHICAL APPROVAL

Not required

REFERENCES

1. Alshawish E, Qadous S, Yamani MA. Experience of Palestinian women after hysterectomy using a descriptive phenomenological study. The Open Nursing Journal. 2020 Jun 1;14(1).
2. Prusty RK, Choithani C, Gupta SD. Predictors of hysterectomy among married women 15–49 years in India. Reproductive health. 2018 Dec;15(1):1-1.
3. Desai S, Campbell OM, Sinha T, Mahal A, Cousens S. Incidence and determinants of hysterectomy in a low-income setting in Gujarat, India. Health policy and planning. 2017 Feb 1;32(1):68-78.
4. Shekhar C, Paswan B, Singh A. Prevalence, sociodemographic determinants and self-reported reasons for hysterectomy in India. Reproductive Health. 2019 Dec;16(1):1-6.
5. Uzun R, Savaş A, Ertunç D, Tok E, Dilek S. The effect of abdominal hysterectomy performed for uterine leiomyoma on quality of life. Turkiye Klinikleri Journal of Gnynecology and Obstetrics. 2009;19(1):1.
6. Desai S, Campbell OM, Sinha T, Mahal A, Cousens S. Incidence and determinants of hysterectomy in a low-income setting in Gujarat, India. Health policy and planning. 2017 Feb 1;32(1):68-78.
7. Stankiewicz A, Pogany L, Popadiuk C. Prevalence of self-reported hysterectomy among Canadian women, 2000/2001-2008. Chronic diseases and injuries in Canada. 2014 Feb 1;34(1).
8. Singh A, Arora AK. Why hysterectomy rate are lower in India. Indian journal of community medicine: official publication of Indian Association of Preventive & Social Medicine. 2008 Jul;33(3):196.
9. Rajeshwari BV, Hishikar V. Views and reviews of hysterectomy: a retrospective study of 260 cases over a period of 1 year. Bombay Hospital Journal. 2008;50(1):59.

10. Prasad DR, Nair NV. Retrospective analysis of elective hysterectomy cases in a tertiary care centre. International Journal of Reproduction, Contraception, Obstetrics and Gynecology. 2018 Sep 1;7(9):3714-8.
11. Pandey D, Sehgal K, Saxena A, Hebbar S, Nambiar J, Bhat RG. An audit of indications, complications, and justification of hysterectomies at a teaching hospital in India. International journal of reproductive medicine. 2014 Jan 2;2014.
12. Desai S, Shukla A, Nambiar D, Ved R. Patterns of hysterectomy in India: a national and state-level analysis of the fourth national family health survey (2015–2016). BJOG: An International Journal of Obstetrics & Gynaecology. 2019 Aug;126:72-80.
13. Bala R, Devi KP, Singh CM. Trend of hysterectomy: A retrospective analysis in Regional Institute of Medical Sciences (RIMS). Journal of Medical Society. 2015 Jan 1;29(1):4.
14. Wu JM, Wechter ME, Geller EJ, Nguyen TV, Visco AG. Hysterectomy rates in the United States, 2003. Obstetrics & Gynecology. 2007 Nov 1;110(5):1091-5.
15. Committee on Gynecologic Practice. Choosing the route of hysterectomy for benign disease. Obstetrics and gynecology. 2017 Jun;129(6):155-9.
16. Ramdhan RC, Loukas M, Tubbs RS. Anatomical complications of hysterectomy: A review. Clinical Anatomy. 2017 Oct;30(7):946-52.