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Original research article

Clinical profile and Complications associated with Hysterectomy at a tertiary care hospital

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Abstract

Background: the uterus is the identity of any woman. Hence, apart from physical complications, there can be emotional and psychological disturbances as well after the hysterectomy. The experts opine that about 70% of the hysterectomy may not be appropriate for those women. All possible options for conservative therapy should be explored before planning for surgical approach.

Objective: To study the Clinical profile and Complications associated with hysterectomy

Methods: A hospital based prospective study was carried out among 405 women undergoing hysterectomy. Their age, parity, co-morbidities, presenting complaints, different approaches for hysterectomy and complications were noted. The data was described as percentages.

Results: Majority (67.4%) were 41-50 years. Majority (83.6%) were multipara. Anemia was most common seen in 48.5%. Most common presenting complaint was abnormal uterine bleeding in 52%. Most common indication for hysterectomy was fibroid in 42.7%. Most common procedure performed for hysterectomy was Total abdominal hysterectomy (TAH) in 29.2% followed by TAH+ unilateral salpingo-oophorectomy in 15.3%. Only 28.3% had complications during surgery and in that most common was Hemorrhage requiring blood transfusion in 26.2%. Incidence of bladder injury was 0.7%. Pain was most common immediate post-operative complication in 20.7%. All cases were followed for one year after surgery. Nine had some complications in which vault prolapse was seen in 1.4% of cases.

Conclusion: Hysterectomy is commonly performed in fourth decade of life among multipara. Correction for anemia is required before hysterectomy. Mostly they present with abnormal uterine bleeding and fibroid is the most common indication. TAH is commonly done procedure and overall, the complications are less.

Keywords: Clinical profile, complications, hysterectomy, abnormal uterine bleeding, fibroid

Introduction

There are many indications for hysterectomy like uterine fibroid, abnormal uterine bleeding etc. The procedure in not desirable for women in the reproductive age group. But, if required, needs to be done to prevent the complications and specially to prevent the adverse effects due to uterus removal. Themison Athens was the first to perform hysterectomy in 50 BC [1].

After that hysterectomy was performed only when there was prolapse of the uterus or inversion of the uterus. Later during early 20th century, other indications like cancer of the uterus were included and the main approach for the procedure was abdominal. In 1990 the laparoscopic procedure was introduced which was associated with minimal complications. It was also associated with the improved quality of life and quick convalescence [2].

While considering the laparoscopic hysterectomy, size and weight of the uterus besides competency of the surgeon matters a lot. If the size of the uterus is more than one kg, then one should check whether the abdominal muscles are flexible or not and other important factors [3]. In addition, the most important is obstetric history. If the woman has undergone cesarean section in the past and is a multigravida, adhesions pose a problem. The fatty women also are a challenge [4].

There are different approaches for hysterectomy like abdominal, vaginal or minimally invasive approach depending upon various factors. For every 1000 women, around 2.13 to 3.62 women undergo hysterectomy in Germany. Whereas in USA, this rate varies at around 5.4 per 1000 women [5, 6].

The uterus is the identity of any woman. Hence, apart from physical complications, there can be emotional and psychological disturbances as well after the hysterectomy. The experts opine that about 70% of the hysterectomy may not be appropriate for those women. All possible options for conservative therapy should be explored before planning for surgical approach [7-9].

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With this background, present study was carried out to study the Clinical profile and complications associated with hysterectomy.

Methods

Present study was hospital based prospective cohort study. The cohort was defined here as all women undergoing hysterectomy at this tertiary care center. The study was carried out from January 2018 to January 2021. During this period, it was possible to include 405 women undergoing hysterectomy as per the inclusion and exclusion criteria laid down for the present study. All the women were followed till next one year from the date of their discharge after they underwent the hysterectomy. Present study was carried out at the Department of Obstetrics and Gynecology, Malla Reddy Medical College for Women, Hyderabad.

The protocol was submitted to the Institution Ethics Committee before the study and the data collection was actually initiated. As all the cases were routinely undergoing hysterectomy as per their need and indications and the standard protocol of the hospital, there was no special intervention and investigations for the study participants. All data pertaining to the identity of the women were not used in the present study. Hence, the Institution Ethics Committee permission was obtained. Written informed consent separately for data publication was also taken from the participants of the present study.

All women of any age undergoing hysterectomy for gynecological problems in this tertiary care hospital irrespective of type of approach used for the hysterectomy were included in the present study. Those not willing, having severe co-morbidities, and those with some missing data were excluded from the present study. Finally, it was possible to include 405 women in the present study.

The age, parity was recorded as told by the participants. Co-morbidities were verified from their past medical records or from the routine investigations performed. All presenting complaints were noted. Some women had more than one presenting complaints. Based on the complaints, clinical examination and investigations we made a list of indications for that particular patient and decided to post the women for hysterectomy. The approach for hysterectomy was also decided based on several factors. The most suitable approach was finalized that will be useful for the woman and will be associated with the minimal complications. Finally, all the complications were noted. They were divided as intra-operative, immediate post-operative and late post-operative. The late post-operative complications were those which occurred any time from one week after surgery up to one year and are due to hysterectomy. The intra-operative complications were those which occurred during surgery or within 24 hours of surgery. The immediate post-operative complications were those which occurred after 24 hours of surgery up to 7 days of it.

All the women for whom the surgery was indicated underwent thorough clinical examination by us to assess the fitness for surgery and also to rule out any other medical conditions that can lead to complication due to surgery. The pre anesthetic checkup was done by Anesthesiologists for all women before the surgery. The hysterectomy was performed as per the standard protocol. After surgery, appropriate post-operative care was given.

The data was entered in the Microsoft Excel worksheet and presented as proportions.

Results

Table 1: General characteristics of the study subjects (N = 405)

Characteristics		Number	Percentage
Age (years)	Up to 40	04	0.9
	41-50	273	67.4
	51-60	106	26.2
	61-70	14	3.4
	> 70	8	1.9
Parity	Nullipara	9	2.2
	Primipara	58	4.3
	Multipara	338	83.6
Co-morbidities	Diabetes	46	11.3
	Anemia	196	48.5
	Hypertension	33	8.1
	Hypothyroidism	89	22.1
	Not present	41	10.1

Table 1 shows general characteristics of the study subjects. Majority of women were in the age group of 41-50 years i.e. 67.4% who underwent hysterectomy followed by women in the age group of 51-60 years (26.2%). Only four women were below 40 years and only 22 were above 60 years of age. Only nine were nullipara and 58 were primipara. Majority (83.6%) were multipara. 10.1% of women had no associated co-morbidities. Anemia was the most common seen in 48.5% of women followed by hypothyroidism in 22.1% of women.

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Table 2: Distribution of study subjects based on the presenting complaints

Presenting complaints	Number	Percentage
Abnormal uterine bleeding	211	52
Pain in abdomen	82	20.2
Vaginal discharge	62	15.3
Mass per vaginum	42	10.3
Mass per abdomen	186	46.1
Post-menopausal bleeding	44	10.8

Table 2 shows distribution of study subjects based on the presenting complaints. The most common presenting complaint was abnormal uterine bleeding in 52% cases followed by mass per abdomen in 46.1% of the cases.

Table 3: Distribution of study subjects as per indications for hysterectomy

Indications for hysterectomy	Number	Percentage
Functional abnormal uterine bleeding	46	11.3
Fibroid	173	42.7
Adenomyosis	52	12.8
Cervical pathology	49	12.1
Adnexal pathology	33	8.2
Prolapse	28	6.9
Cervical polyp	14	3.4
Atypical endometrial hyperplasia	10	2.5
Total	405	100

Table 3 shows distribution of study subjects as per indications for hysterectomy. Most common indication for hysterectomy was fibroid in 42.7% of the cases followed by adenomycosis in 12.8% of the cases.

Table 4: Distribution of study subjects as per procedure undergone for hysterectomy

Procedure undergone for hysterectomy	Number	%
Total abdominal hysterectomy	118	29.2
Total abdominal hysterectomy + unilateral salpingo-oophorectomy	62	15.3
Total abdominal hysterectomy + bilateral salpingo-oophorectomy	54	13.3
Non descent vaginal hysterectomy	67	16.5
Vaginal hysterectomy + pelvic floor repair	58	14.3
Laparoscopic assisted vaginal hysterectomy	10	2.4
Total laparoscopic hysterectomy	36	8.9
Total	405	100

Table 4 shows distribution of study subjects as per procedure undergone for hysterectomy. The most common procedure performed for hysterectomy was Total abdominal hysterectomy in 29.2% of the cases followed by Total abdominal hysterectomy + unilateral salpingo-oophorectomy in 15.3% of the cases.

Table 5: Distribution of study subjects as per the complications of hysterectomy

Complications		Number	%
Intra-operative	Hemorrhage requiring blood transfusion	106	26.2
	Bladder injury	3	0.7
	Anesthetic complications	6	1.4
Immediate post-operative	Pain	84	20.7
	Fever	46	11.3
	Urinary tract infection	30	7.4
	Wound sepsis	22	5.4
	Paralytic ileus/abdominal distension	35	8.6
	Resuturing	16	3.9
	Deep venous thrombosis and pulmonary embolism	1	0.2
Late complications	Vault prolapse	6	1.4
	Incisional hernia	2	0.4
	Fallopian tube prolapse	1	0.2

Table 5 shows distribution of study subjects as per the complications of hysterectomy. Only 28.3% of the cases had complications during surgery and in that most common was Hemorrhage requiring blood transfusion in 26.2% of the cases. The incidence of bladder injury was 0.7% in the present study. Pain

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was the most common immediate post-operative complication in 20.7% of the cases followed by fever in 11.3% of the cases. All cases were followed for one year after surgery only nine had some complications in which vault prolapse was seen in 1.4% of the cases.

Discussion

Majority of women were in the age group of 41-50 years i.e. 67.4% who underwent hysterectomy followed by women in the age group of 51-60 years (26.2%). Only four women were below 40 years and only 22 were above 60 years of age. Only nine were nullipara and 58 were primipara. Majority (83.6%) were multipara. 10.1% of women had no associated co-morbidities. Anemia was the most common seen in 48.5% of women followed by hypothyroidism in 22.1% of women. The most common presenting complaint was abnormal uterine bleeding in 52% cases followed by mass per abdomen in 46.1% of the cases. Most common indication for hysterectomy was fibroid in 42.7% of the cases followed by adenomycosis in 12.8% of the cases. The most common procedure performed for hysterectomy was Total abdominal hysterectomy in 29.2% of the cases followed by Total abdominal hysterectomy + unilateral salpingo-oophorectomy in 15.3% of the cases. Only 28.3% of the cases had complications during surgery and in that most common was Hemorrhage requiring blood transfusion in 26.2% of the cases. The incidence of bladder injury was 0.7% in the present study. Pain was the most common immediate post-operative complication in 20.7% of the cases followed by fever in 11.3% of the cases. All cases were followed for one year after surgery only nine had some complications in which vault prolapse was seen in 1.4% of the cases.

Subburaj L *et al*. [10] carried out a record based study among 100 women. All women underwent only laparoscopic hysterectomy. While in the present study all women were operated using different approaches including laparoscopic hysterectomy. The author stated that the parity had a significant influence on the surgery duration and hospital stay. Less the parity, less was the surgery duration and hospital stay.

Manadhar T *et al*. [11] carried out a cross sectional study among 1912 cases who underwent one or the other gynecological surgery in their hospital. Among them the prevalence of hysterectomy as reported by the author was 59.2%. The most common indication for hysterectomy was fibroid uterus (35.1%). We also found that fibroid uterus was the most common indication for hysterectomy in the present study (42.7%).

Dhobale AV *et al*. [12] used case records to note the clinical data of patients. They found that the most commonly involved age group for the hysterectomy was 41-45 years. We also noted that 67.4% of the women were in the age group of 41-50 years who underwent hysterectomy. The average parity in the author study was 3.2. They also noted that the most common presenting complaint was Abnormal vaginal bleeding associated with various forms of menstrual irregularities. We also found that the abnormal uterine bleeding was present in 52% of the cases and the most common presenting complaint recorded. They also found that anemia was very common in them before surgery. We also found that 48.5% of the women had anemia before surgery which needed correction. The authors reported that the fibroid uterus was the most common indication for surgery and we also found that it was there in 42.7% of the cases.

Pandey MR *et al*. [13] did a retrospective study among 101 cases. The mean age involved in their study was 45.48$\pm$8.75 years. We also noted that 67.4% of the women were in the age group of 41-50 years who underwent hysterectomy. The mean parity in their study was 2.5$\pm$1.197. In the present study also majority of women were multiparous. The most common presenting complaint in their study was pain in the abdomen in 49.5% of the cases. But we found that the abnormal uterine bleeding was present in 52% of the cases and the most common presenting complaint recorded. The authors reported that the fibroid uterus was the most common indication for surgery in 51.5% of their cases and we also found that it was there in 42.7% of the cases. The authors found that the incidence of surgical site infection was 9.9% which required resuturing and the next common complication was urinary tract infection in 7.9% of the cases. In the present study the incidence of wound sepsis was 5.4% and that of urinary tract infection was 7.4%.

Conclusion

Hysterectomy is commonly performed in fourth decade of life among multipara. Correction for anemia is required before hysterectomy. Mostly they present with abnormal uterine bleeding and fibroid is the most common indication. TAH is commonly done procedure and overall the complications are less.

References

1. Ashokkumar J, Roopa MS. Clinical profile of patients undergoing laparoscopic assisted vaginal hysterectomy/total abdominal hysterectomy. Int J Clin Obstet Gynecol. 2018;2(1):75–77.
2. Puntambekar SP, Wagh GN, Puntambekar SS, *et al*. A novel technique of total laparoscopic hysterectomy for routine use: evaluation of 140 cases. Int J Biomed Sci. 2008;4(1):38–43.
3. Krentel H, De, Wilde RL. Factors for a successful laparoscopic hysterectomy in very large uteri.

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Case Rep Med. 2017;2017:1637472.
4. Chen B, Ren DP, Li JX, *et al*. Comparison of vaginal and abdominal hysterectomy: A prospective non randomized trial. Pak J Med Sci. 2014;30(4):875–879.
5. 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. Int J Reprod Med. 2014;2014:1–6.
6. Makinen J. Morbidity of 10 110 hysterectomies by type of approach. Hum Reprod. 2001;16(7):1473–8.
7. Lykke R, Blaakær J, Ottesen B, Gimbel H. The indication for hysterectomy as a risk factor for subsequent pelvic organ prolapse repair. Int Urogynecol J. 2015;26(11):1661–5.
8. Broder MS, Kanouse DE, Mittman BS, Bernstein SJ. The appropriateness of recommendations for hysterectomy. Obstet Gynecol. 2000;95(2):199–205.
9. Committee on Gynecologic Practice Committee Opinion No 701: Choosing the Route of Hysterectomy for Benign Disease. Obstet Gynecol. 2017;129(6):e155–e159.
10. Subburaj L, Saravanan S, Kumar R. Clinical Profile of Patients Undergoing Laparoscopic Hysterectomy. J South Asian Feder Obstet Gynecol. 2020;12(5):277–280.
11. Manadhar T, Sitaula S, Thapa BD, Agrawal A, Thakur A. Prevalence of Hysterectomy among Gynecological Surgeries in a Tertiary Care Hospital. JNMA J Nepal Med Assoc. 2020;58(232):965-70.
12. Dhobale AV, Kohale MG, Bankar NJ. A Study of Patients Undergoing Abdominal Hysterectomy in Tertiary Care Institute. Cureus. 2023 Jan, 16;15(1):e33818.
13. Pandey MR, Ghosh A, Chaulagain P, Kandel K. Clinical profile of patients undergoing abdominal hysterectomy at a medical college in Nepal. Asian J Med Sci. 2021;12(2):1-10.