Frequency of Complications Among Total Abdominal Hysterectomy Patients in Rehman Medical Institute Hayatabad Peshawar

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ABSTRACT

Background: Complications are a common phenomenon during any gynecological and obstetrical surgical intervention and poses serious threat to female health. Timely recognition and effective management of the complication reduces significant morbidity.

Objectives: This study was conducted to assess the frequency of complications among total abdominal hysterectomy (TAH) patients at Rehman Medical Institute, Peshawar.

Materials and Methods: A two years cross-sectional study,on198patients undergoing total abdominal hysterectomy was conducted in the Gynecology Unit of Rehman Medical Institute Peshawar, Pakistan; from October 2015 to September 2017. All patients who were operated for abdominal hysterectomy with or without salpingo-oophrectomy were included and relevant data was collected through a structured questionnaire.

Results: Approximately 42.93% (n=85), had post hysterectomy complications among the study populations (n=198). Among these participants; 77.78% were above 40 years age. Among the study population; 32.32% were anemic; 15.66% had fibroids, 10.61% had history of endometriosis; 13.64% had C-sections; 18.69% had positive history of diabetes mellitus or/ and hypertension; and approximately 26.26% were obese. Out of all patients (n=198), operated for TAH, the following complications were observed; post operative pain (23.74%),surgical site infections (18.18%), excessive bleeding (14.65%),cardiac problems (9.60%); neurological effects(1.51%), urinary tract injuries (7.07%), respiratory problems (4.55%),gastrointestinal tract injuries (4.04%), wound scar dehiscence (2.53%), vaginal cuff dehiscence (1.01%) and miscellaneous problems (12.63%) like fever, weakness, body ache, perennial pressure and discomfort etc.

Conclusions: It was concluded that most of the patients following total abdominal hysterectomy eventually complained of different complications as our study population had high prevalence of high risk and serious cases who were referred and treated at Rehman Medical Institute, Hayatabad, Peshawar. Thus close monitoring of identified risk factors, adequate management of diabetes mellitus, hypertension and timely recognition and effective management of the complication reduces significant morbidity.

Key Words: *Hysterectomy, Complications, Bleeding Disorders, Fibroids, and Peshawar.*

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INTRODUCTION

Globally, hysterectomy is the second most commonly major gynecological operation and laparotomy is still the most common route for hysterectomy [1,2]. Approximately 20% of women have had total abdominal hysterectomy by the age of 60 years. Dysfunctional uterine bleeding is the most common indication (46%)followed by fibroid and genital cancers. Hysterectomy is a common, routine surgery with comparatively rare serious complications. However in patients with advanced age, fibroids and endometriosis are at most risk of experiencing severe complications both operatively and post-operatively [3].The complications were divided into those, which occurred during operation, during hospital stay and within 48 hours after discharge from the hospital[3,4].

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The most common complications of hysterectomy arepostoperative pain, infections, venous thrombo-embolic, genitourinary tract injury, bleeding, and vaginal cuff dehiscence. Infectious complications after hysterectomy are most common [5]. Three main types of hysterectomy are abdominal, vaginal, and laparoscopic. Abdominal hysterectomy has been used for dysfunctional uterine bleeding, gynecological malignancy, chronic pelvic pain, endometriosis and adenomyosis[6]. Total abdominal hysterectomy had more blood loss, longer stay in hospital, late return to normal activities, more wound infections and fever after abdominal hysterectomy [7]. The prevalence of postoperative infections is reported to be 14.4% to 55% among patients with total abdominal hysterectomy [8,9].

The risk factors for postoperative infections are non-use of antibiotic prophylaxis, longer hospital stay, age more than 40 years, and BMI of more than 30 kg/m[24,11],smoking, uterus weight, blood transfusion, and peri-operative injuries[11].The pre-existing cardiovascular disease increases the risk of peri-operative complications like coronary artery disease, and peripheral vascular disease and valvular heart disease[10]

Abdominal hysterectomy is found to have greater blood loss, long operative times, longer postoperative stay, more febrile morbidity, and more frequent transfusions. The incidence of bladder and ureter injury during abdominal hysterectomy was 0.58% and 0.35% respectively[12]. The incidence of urinary tract injury during is 1-2% for all major gynecological surgeries, with 75% of them occurring during hysterectomy. The abdominal hysterectomy was associated with a higher incidence of ureteral injury (2.2%) [13]. Injury to the gastrointestinal tract after hysterectomy is less common with a range of 0.1-1%. Moreover, pelvic cellulitis and wound abscess were significantly more common with TAH[14]. Bleeding complications are more common with total abdominal hysterectomy than vaginal and laparoscopic hysterectomies[15,16].

Neuropathy after hysterectomy is a rare 0.2-2% but significant event. The complications after total abdominal hysterectomy are on rise due to many risk factors and thus poses woman to too many risks. In Pakistan, the complications are on rise due to increase prevalence of anemia, fibroids, cancers, diabetes mellitus, hypertension, obesity, dysfunctional uterine bleeding and endometriosis. Thus this cross sectional study was designed to estimate the frequency of different complications of total abdominal hysterectomy among the patients who visited Rehman Medical Institute, Hayatabad, Peshawar with an aim to timely recognize and manage the various complications after total abdominal hysterectomy and to reduce its associated morbidity and mortality.

MATERIAL AND METHODS

A cross sectional study was conducted at Rehman Medical Institute, Hayatabad, Peshawar, from October 2015 to September 2017, in which a total of 198 post total abdominal hysterectomy patients of gynecological unit were enrolled for the assessment of complications among total abdominal hysterectomy operated patients. A structured questionnaire was used to collect relevant information regarding different dependent and independent variables. The Ethical Review Committee of the Rehman Medical Institute, Hayatabad Peshawar, Pakistan, approved the protocol of manuscript and data collection. The data was exclusively used for the study purpose. High confidentiality and anonymity was met. Microsoft Word 2007 and SPSS 20 were used for statistical analysis. Data was presented in form of tables.

RESULTS

Our study results found that, out of the total study population (n=198) who undergone total abdominal hysterectomy with or without salpingo-oophrectomy; approximately 22.22% were below 40 years of age while the remaining 77.78% were above 40 years age. The complication rate was high with increasing age of the woman as shown in Table No 1.

Our study results showed that approximately 42.93% (n=85), had post hysterectomy complications among the total study participants (n=198). Moreover, our study population had high prevalence of complications as complicated, high risk and serious cases were referred and treated at Rehman Medical Institute, Hayatabad, Peshawar.

Among those patients who had post operative complications after TAH (n=85); approximately; n=64 were found anemic; n=31 had fibroids, n=21 had history of endometriosis; n=27 had history C-section; n=37 were positive for diabetes mellitus or/ and hypertension; n=59 had blood transfusions, n=32 had dysfunctional uterine bleeding; and n=52 were obese, as were shown in Table No.2.

In our study; post operative pain was found in n=47, postoperative surgical site infections n=36, excessive bleeding in n=29, vaginal cuff dehiscence n=2, cardiac problems n=19; neurological manifestations in n=15, urinary tract injuries in n=14, respiratory problems in n=9,injury to the genital tract n=8, wound scar dehiscence n=5, and miscellaneous problems like fever, body-aches, weakness, sore throat, discomfort, vertigo n=25as were shown in Table No.3.

Table No 1. Showing Age Distribution Of Study Population (n=198) at Rehman Medical Institute, Hayatabad Peshawar

Age Group	POCs f (%)	No POCs f (%)	Total f (%)
< 40	15 (7.58)	29 (14.65)	44 (22.22)
40 – 50	51 (25.76)	78 (39.39)	129 (65.15)
50 & Above	19 (9.6)	6 (3.03)	25 (12.63)
Total	85 (42.93)	113 (57.07)	198 (100)

Table No 2. Showing frequency of various causes & risk factors among the study population (n=198) and post operative complications (POCs) at Rehman Medical Institute Hayatabad Peshawar

Variables	Response	POCs f (%)	No POCs f (%)	Total f (%)
Anemia	Yes	64 (32.32)	30 (15.15)	94 (47.47)
	No	21 (10.61)	83 (41.93)	104 (52.53)
Obesity	Yes	52 (26.26)	35 (17.68)	87 (43.94)
	No	33 (16.67)	78 (39.39)	111 (56.06)
HTN &/ or DM	Yes	37 (18.69)	52 (26.26)	89 (44.95)
	No	48 (24.24)	61 (30.81)	109 (55.05)
Prophylactic Antibiotics used	Yes	27 (13.64)	42 (21.21)	69 (34.85)
	No	58 (29.29)	71 (35.86)	129 (65.15)
Blood Transfusion	Yes	59 (29.80)	38 (19.19)	97 (48.99)
	No	26 (13.13)	75 (37.88)	101 (51.01)
Previous C-Section	Yes	27 (13.64)	28 (14.14)	55 (27.78)
	No	58 (29.29)	85 (42.93)	143 (72.22)
Fibroids	Yes	31 (15.66)	22 (11.11)	53 (26.77)
	No	54 (27.27)	91 (45.96)	145 (73.23)
Dysfunctional Uterine Bleeding	Yes	32 (16.16)	34 (17.17)	66 (33.33)
	No	53 (26.77)	79 (39.9)	132 (66.67)
Endometriosis	Yes	21 (10.6)	19 (9.6)	40 (20.2)
	No	64 (32.32)	94 (47.47)	158 (79.8)

Table No 3. Showing Frequency of Different Complications of Total Abdominal Hysterectomy with Salpingo=Oophorectomy among patients (n=198) at Rehman Medical Institute Hayatabad Peshawar

Sr. No	Type of Complications	Frequency f (%)
1	Post operative pain	47 (23.74)
2	Post operative bleeding	29 (14.65)
3	Respiratory complications (Atelectasis, respiratory tract infection, etc.)	9 (4.55)
4	Cardiac manifestations (chest pain, shortness of breath, Venous thromboembolism)	19 (9.6)
5	Surgical Site Infections	36 (18.18)
6	Wound scar dehiscence	5 (2.53)
7	Neurological complications	3 (1.51)
8	Vaginal cuff dehiscence	2 (1.01)
9	Urinary System Injuries	14 (7.07)
10	Gastrointestinal Injuries	8 (4.04)
11	Miscellaneous Complications i.e. Fever, Body-aches, Weakness, sore throat, Discomfort, Vertigoetc.	25 (12.63)

DISCUSSION

In our study, approximately 42.93% (n=85) had complications whereas in international studies the total abdominal hysterectomy complications were reported to as 14.6% (17) and 17.1% (3). In our study post-operative complications showed strong relationship with age (Table No 1); and with fibroids (n=53; 26.77%) and thus supported international studies [1,4].

Our study results showed strong positive relationship with anemia (32.32%); C-section (13.64%); fibroids (15.68%); DUB (16.16 %); and endometriosis (10.61%). Our study results showed strong relationship with obesity (26.26%) and were supported by international studies (15.40%) [8,18].

Our study findings revealed complications like wound dehiscence, n=5 (2.53%) as was supported by international studies having prevalence of 0.4% and 1.35%[5,19].The neurological, ureter, bladder and bowel injuries/ complications were common in major surgeries and were supported by our study results i.e. showed 7.58%, 7.07%, and 4.04% as supported by international research findings [12,20].

The previous studies revealed showed high prevalence of infection and showed ranges from 14.4% [8] to 55% [9]; whereas in our study it was 18.18% (n=36); thus similar to 14.4% in a study conducted in 2011 at Denver [8] and in contrast to study published in Archives of Gynecology and Obstetrics in 2004 which showed an infection rate of 55%[9].Our study revealed major complications of post-operative pain of 23.74% (n=47) and bleeding disorders/ coagulopathy of 14.65% (n=29); and supported the findings of Swedish study of 2004 [21].

CONCLUSION

Study concludes that the prevalence of various complications among patients following total abdominal hysterectomy with/ or without salpingo-oophrectomy were high .The complication rate had a strong relation with risk factors like anemia, fibroids, cancers, diabetes mellitus, hypertension, obesity, dysfunctional uterine bleeding and endometriosis.

Thus close monitoring of identified risk factors, adequate management of diabetes mellitus, hypertension, and early identification and management of patients in a well-equipped unit is needed to manage and prevent complications among operated patients.

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