Assessment of the Frequency of Hysterectomy in Relation to its Causes in Salahuddin General Hospital, 2022

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Abstract

Background: The uterus is a vital reproductive organ that is subjected to many benign and malignant diseases. Although many treatment options are available including medical and conservative surgical but hysterectomy remains the most common gynecological procedure performed worldwide. It is associated with many complications that increased mortality and morbidity. **Aim:** To evaluate the clinical indications of hysterectomy in Salahadeen Governorate**. patients and Method:** A prospective cross-sectional study was conducted in Salahadeen General Hospital /Gynecology and Obstetrics department during the period from 1st of December 2021 to 30th of June 2022, All the females who had hysterectomies during the study period were enrolled in the current study. The questionnaire was divided into four parts including sociodemographic characteristics, obstetrical characteristics, medical characteristics, and the main cause for hysterectomy. **Results:** A total of 57 patients were enrolled in the current study, patients with ages of 50-59consitituted more than half of the sample. More than half of the patients had overweight (56.1%), while 15.8% were obese. Most of the hysterectomies (91.2) were done electively, while the others were done due to emergency causes. Among elective causes, the fibroid was the most common cause of hysterectomy (25.0%), followed by adenomyosis and endometriosis (15.4% for each). **Conclusion:** Leiomyoma (Fibroid), adenomyosis, and endometriosis were the most common causes of hysterectomy. Most of the hysterectomies were done selectively rather than emergency hysterectomies.

Keywords: Hysterectomies, Leiomyoma, Adenomyosis, Endometriosis, Emergency Hysterectomies, Salahuddin General Hospital.

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INTRODUCTION

The uterus is a vital reproductive organ that is subjected to many benign and malignant diseases. Many treatment options are available including medical and conservative surgical but hysterectomy remains the most common gynaecological procedure performed worldwide[(1).] Hysterectomy is the most common gynecologic procedure performed in the United States, with more than 600,000 procedures performed each year[(2).]

Data from the United Kingdom suggested a hysterectomy rate of 42 per 100,000 population, with higher rates in the United States (143/100,000) and Canada (108/100,000). Countries with no waiting times for surgeries have even higher rates, with Germany reporting rates of 236 per 100,000 and Australia 165 per 100,000[(3).]

They are seen more often in the developing world due to decreased availability and lack of uptake of antenatal services, especially in rural areas. It represents a major operation in modern obstetrics being associated with a high rate of morbidity and mortality[(4).]

Most hysterectomies are elective. Uterine leiomyomas (uterine fibroids) are cited as the most common indication for hysterectomy, accounting for approximately one-third of all hysterectomies performed. Abnormal uterine bleeding is the next most common indication, accounting for approximately 16% of hysterectomies, while gynecologic cancers account for less than 8% of all hysterectomies[(5).] Emergency hysterectomy is a major surgery, which is almost always done in the case of severe and life-threatening bleeding after vaginal delivery and CS, It is performed emergently in the first 24 hours because of severe vaginal bleeding after vaginal delivery or CS[(6).] Emergency hysterectomy complicates almost 1 per 1000 deliveries worldwide ranging from 0.2–10.1 per 1000 births, with the prevalence higher in low and middle income, than in upper-middle and high-income settings: 2.8 compared with 0.7 per 1000 deliveries respectively[(7).]

The most common complications of hysterectomy can be categorized as infectious, venous thromboembolic, genitourinary and gastrointestinal tract injury, bleeding, nerve injury, and vaginal cuff dehiscence[(2).] In addition, the reproductive failure in a young woman (after the loss of the uterus) may cause destructive mental-psychological effects in addition to physical consequences associated with high morbidity and mortality rates[(6).]

It is concerning that the prevalence of hysterectomies in developing nations is rising, and efforts should be made to

assess the clinical indications and pathologies associated with hysterectomies carried out on women of reproductive age. Doing so could help determine how best to allocate resources for primary healthcare and hysterectomy prevention[8].It is imperative to continue evaluating trends in the performance of this procedure, including factors associated with undergoing different modes of hysterectomy[9].

Aim of the study: To evaluate the clinical indications of hysterectomy in Salahadeen Governorate. Estimate the main factors that could be attributed to increasing the frequency of hysterectomy. To role out the sociodemographic, medical, and profile of the patients who will undergo a hysterectomy.

Objective: Estimate the main factors that could be attributed to increasing the frequency of hysterectomy. As well as to role out the sociodemographic, medical, and obstetrical profile of the patients who will undergo a hysterectomy.

PATIENTS AND METHOD

Study design and setting: A prospective cross-sectional study was conducted in Salahadeen General Hospital /Gynecology and Obstetrics department during the period from 1st of December 2021 to 30th of June 2022.

Sampling and study population: All the females who had hysterectomies during the study period were enrolled in the current study.

Data collection

A form of a standardized questionnaire was developed by the researcher after a review of many similar articles with revision by the supervisor to collect the data. The questionnaire was divided into four parts including sociodemographic characteristics, obstetrical characteristics, medical characteristics, and the main cause for hysterectomy.

Part one: Sociodemographic characteristics, including age, employment, residency, and marital state.

Part two: Obstetrical characteristics, including parity, gravidity, abortions, number of cesarean sections (CS), the complication of the previous pregnancies including preeclampsia, placenta accreta, abrupt placenta, uterine atony.

Part three: Medical characteristics, including body mass index (BMI), chronic non-communicable disease (diabetes mellitus, hypertension, chronic respiratory disease, cancer, cardiovascular disease, chronic kidney disease).

Part four: The main cause for hysterectomy.

Statistical Analysis: SPSS 22 were used for data entry and analysis. The descriptive analysis focused on frequencies and percentages.

Ethical considerations: The study was proposed and subsequently approved by the scientific committee of the College of the Medicine/University of Tikrit. Fully informed consent was obtained from the patients verbally after explaining the aim of the study thoroughly and clearly with ensuring the anonymity and confidentiality of responses.

RESULTS

A total of 57 patients were enrolled in the current study, patients with ages of 50-59consitituted more than half of the sample, as shown in table-1.

Table (1): Sociodemographic distribution of the participants

Sociodemographic characteristic		N	%
Age (years)	<20	0	0.0
	20-29	3	5.3
	30-39	5	8.8
	40-49	9	15.8
	50-59	33	57.9
	≥60	7	12.3
Occupation	Housewife	47	82.5
	Employed	10	17.5
Residency	Urban	15	26.3
	Rural	42	73.7
Marital state	Married	48	84.2
	Deforced or widow	9	15.8

Regarding chronic disease, 33.3% of the patients had hypertension, 21.2% had diabetes, and 9.1% had thyroid disease (Figure.1).

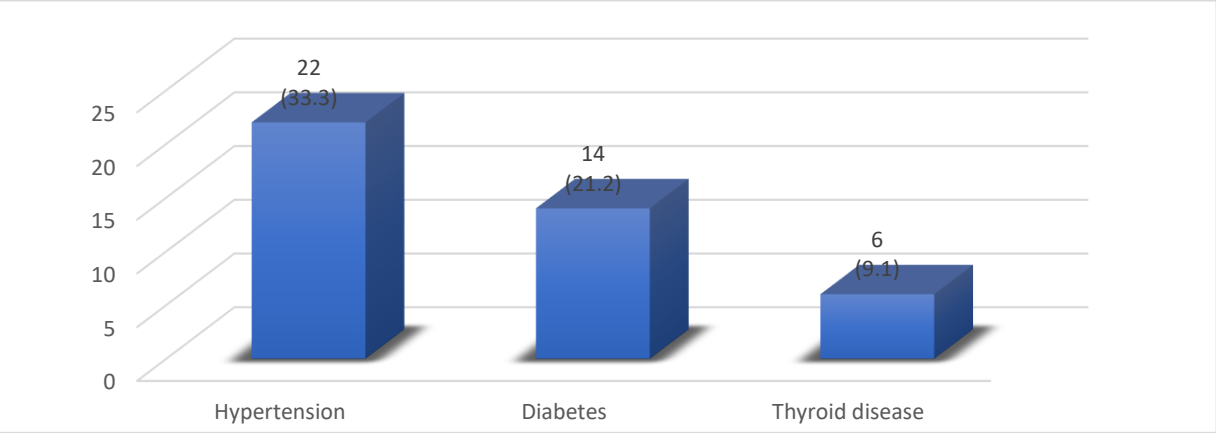

Figure (1): Chronic disease of the participants

More than half of the patients had overweight (56.1%), while 15.8% were obese, as shown in figure -2.

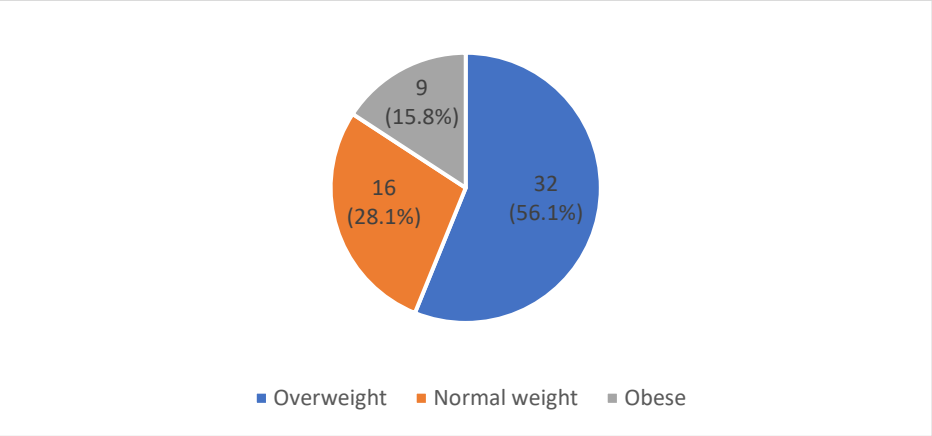

Figure (2): Distribution of the body mass index

About half of the patients had gravidity of ≥7 and 26.3% had parity of ≥7. Previous uterine surgery was reported in 8.8% of the patients, as shown in table 4.2.

Table (2): Gynaecological and obstetrical history

Gynaecological and obstetrical history		N	%
Gravidity	≤3	5	8.8
	4-6	23	40.4
	≥7	29	50.9
Parity	≤3	13	22.8
	4-6	29	50.9
	≥7	15	26.3
Abortions	1.00	7	12.3
	2.00	6	10.5
	3.00	4	7.0
	5.00	2	3.5
Cesarean section	1.00	7	12.3
	2.00	9	15.8
	3.00	4	7.0
	4.00	19	33.3
Previous uterine surgery	Yes	5	8.8
	No	52	91.2
Twin	Yes	12	21.1
	No	45	78.9

Most of the hysterectomies (91.2) were done electively, while the others were done due to emergency causes. Among elective causes, the fibroid was the most common cause of hysterectomy (25.0%), followed by adenomyosis and endometriosis (15.4% for each), as shown in figure -3 and Table -3.

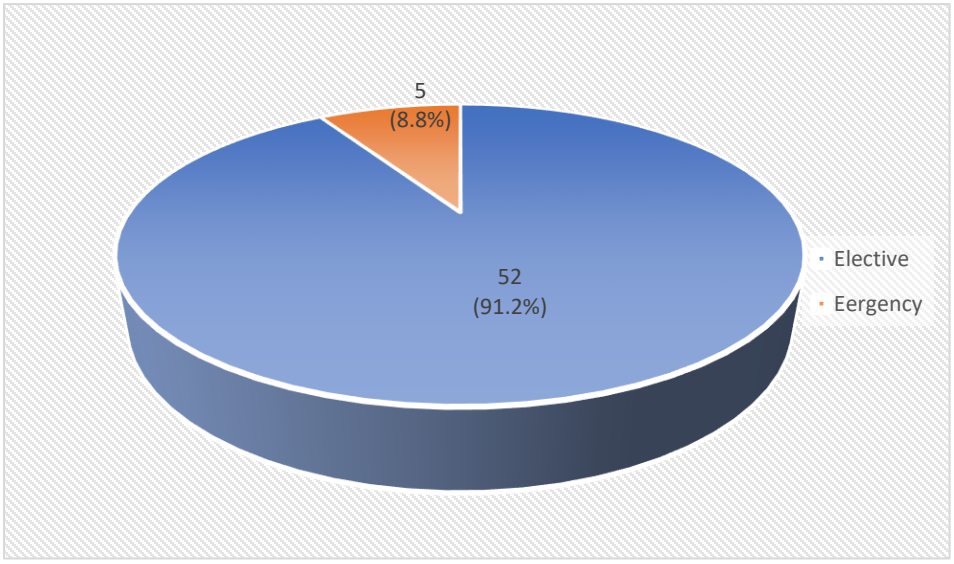

Figure (3): Mode of hysterectomy

Table (3): Distribution of the patients according to the cause of hysterectomy

Causes of hysterectomy		N	%
Mode	Emergency	5	8.8
	Elective	52	91.2
Elective hysterectomy (N=52)	Leiomyoma (Fibroid)	12	23.1
	Adenomyosis	8	15.4
	Endometriosis	8	15.4
	Uncontrolled bleeding	7	13.5
	Prolapse	6	11.5
	Pelvic pain/PID	6	11.5
	Endometrial hyperplasia	5	9.6

DISCUSSION

The medium- and long-term side effects of hysterectomy can include the physical and emotional effects of hormone imbalance associated with menopause, loss of interest in sexual activity, and illnesses that result from an overall weakened body. Moreover, hysterectomy can be associated with significant out-of-pocket expenses for households. Research on a hysterectomy in developing countries is limited. Most studies on the trends and drivers of hysterectomy relate to developed countries. Best to our knowledge, this was the first study in Iraq that Tried to estimate the causes of hysterectomies.

The first finding of the current study was that the age 50-59 was the most commonly affected. Another study was done by Jain et al. revealed that most patients with hysterectomy had an age of 41-50 years[10]. In India, women with age 35-44 followed by 25-34 years constituted the largest percentage of those who had a hysterectomy[11]. While in Germany, Most women (49.1%) were 40–49 years old when a hysterectomy was performed[12].

Housewives and those who were living in the rural areas were the most commonly had hysterectomy in the current study. The same results were obtained in another study that was done in India[13].

Patients with overweight and obesity constituted the largest percentage of the sample in the current study. In agreement, another study was done in China revealed that Obesity was marginally related to a higher risk of hysterectomy[14].

In the current study, nearly half of the patients had gravidity of 7 or more. Van den Akke et al revealed that the risk indicators for hysterectomy included cesarean delivery in the current pregnancy, previous cesarean delivery, older age, and higher parity[15]. Another study that was done in India concluded that the highest percentage of hysterectomies were done for women with a parity of more than three[13].

Regarding abortion, all the patients in the current study had a history of pregnancy loss. In agreement, Fangfang et al concluded that a history of prior pregnancy loss conferred a greater risk for hysterectomy[14].

All patients had a history of CS, and five patients had a history of uterine surgery. Another study done in Oman revealed an association between abnormal placentation and cesarean delivery has been suggested and the high incidence of hysterectomy is directly related to the increasing number of cesarean sections. This was further substantiated by another report where the incidence of placenta previa which was 1.9/1000 after one previous CS, increased by 47-fold to 91/1000 in patients with four previous CS. Patients with placenta previa and scarred uterus had a 16% risk of undergoing hysterectomy compared to 3.6% in patients with an unscarred uterus[16].

In the current study, fibroma was the most commonly encountered cause, followed by endometriosis. In comparison, another study done by Jain et al. revealed that leiomyoma was the cause of elective hysterectomy in more than half of the patients followed by adenomyosis and endometriosis[10]. The same results were obtained by another study that was done in by Rani et al. that concluded leiomyoma is the most common indication for hysterectomy in women between 40 and 50 years and may occur alone or may be associated with conditions like adenomyosis or endometrial polyps[17]. In India, spoiled uterus, menorrhagia, and fibroid were the most common causes of hysterectomy[11]. Excessive menstrual bleeding or pain was self-reported as an indication for hysterectomy by over half of women aged 15–49, followed by fibroids (14.2–20.7%) and uterine disorder (rupture) (13.3–14.9%). Cancer, uterine prolapse and severe postpartum haemorrhage were reported by less than 10% of women in this age group as revealed by another study that was done in India[18].

The most frequent benign tumour in women of reproductive age is uterine fibroids. Despite the fact that the majority of women do not experience symptoms, some of them had abnormal uterine bleeding, pelvic pain or pressure, and urinary dysfunction[19].

CONCLUSION

Leiomyoma (Fibroid), adenomyosis, and endometriosis were the most common causes of hysterectomy, so the most of the hysterectomies were done selectively rather than emergency hysterectomies.

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