

# Assessment of the Egyptian gynecologists' clinical attitude and practice concerning route of hysterectomy

## Abstract

**Objective:** To assess the attitude of Egyptian gynecologists towards the route of hysterectomy in benign pathologies.

**Materials and methods:** A survey was supplied to a sample of gynecologists in Egypt either in conferences or electronically to be filled and returned.

**Results:** In this study the addressed gynecologist' age below or equal to 48 years were 50.6% and those above 48 years were 49.4%. Majority of gynecologists had more than 12 year-experience (59.3%). The abdominal route with subtotal hysterectomy type represented (71.5%). This prevalence was attributed to fear of complications of total hysterectomy in about (90.1%). Majority of gynecologists had no adherence to postoperative follow up (98.3%).

**Conclusions:** Subtotal hysterectomy is the prevalent type of hysterectomy in Egypt owing to fear of complications and medico-legal issues. Regular training courses are required to encourage gynecologists in Egypt to practice total hysterectomy with safe approaches and fewer complications.

**Keywords:** Hysterectomy, Total/subtotal, Attitude/practice, Egyptian gynecologists, Survey

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Ayman Shehata Dawood,<sup>1</sup> Hesham Mohamed Borg,<sup>2</sup> Salwa Abdelmageid Atlam<sup>3</sup>

<sup>1</sup>Lecturer of Obstetrics and Gynecology, Tanta University, Egypt

<sup>2</sup>Assistant professor of Obstetrics and Gynecology, Tanta University, Egypt

<sup>3</sup>Assistant professor of Public Health, Tanta University, Egypt

**Correspondence:** Ayman Shehata Dawood, Lecturer of Obstetrics and Gynecology, Tanta University, Egypt, Tel +201020972067, Email [ayman.dawood@med.tanta.edu.eg](mailto:ayman.dawood@med.tanta.edu.eg)

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## Introduction

Hysterectomy is the second most common operative procedure performed worldwide following cesarean section. The influence of hysterectomy on women's health and how to perform hysterectomy safely are matters of diverse debate. The influences of hysterectomy on maternal health are linked to physical, economic, sexual, and psychological consequences. Safe hysterectomy routes depends mainly on either surgeon's and/or patient's choice. Surgeon's choice is based mainly on expertise, practice, and attitude of the surgeon while the choice of patient is mainly based on proper counseling and personal beliefs rather than the strength of evidence.<sup>1</sup>

Although subtotal hysterectomy has some theoretical benefits regarding shorter operative time, better pelvic floor function and better sexual performance, randomized clinical trials did not support supracervical hysterectomy.<sup>2,3</sup> Thakar et al.<sup>4</sup> included 279 women in a randomized trial to assess urinary, bowel and sexual function in total and subtotal groups. They found no significant difference between the two groups regarding studied parameters. Shorter hospital stay (5.2 days versus 6 days) and lower rate of postoperative fever (6% versus 19%) in subtotal and total groups respectively. Cyclical bleeding occurred in the subtotal group by a rate of 7%.<sup>4</sup>

Similarly, Gimbel H et al.,<sup>5</sup> demonstrated a 20% rate of cyclical vaginal bleeding following subtotal hysterectomy. They reported a higher incidence of urinary incontinence in the subtotal group (18% versus 9%) without impact on quality of life or sexual function.<sup>5</sup> Another study reported post hysterectomy cyclic bleeding occurring in 11% to 17% of cases.<sup>6</sup> A Cochrane review was conducted to evaluate which is superior total versus subtotal hysterectomy. They concluded that the existing data do not support superiority of one type over the other regarding sexual, bladder, or bowel function.<sup>7</sup>

On the same side, the American College of Obstetricians and Gynecologists found that supracervical hysterectomy is not superior to total type and gynecologist must screen patients carefully for cervical or uterine neoplasia prior to choosing subtotal approach.<sup>8</sup> Despite these issues, few studies were found to assess the attitude and practice of gynecologists towards the route of hysterectomy plus the factors affecting surgeon's choice of hysterectomy type. In Egypt, no statistics were found to address the prevalence of both types of hysterectomy among Egyptian gynecologists and the factors affecting their preference of one type over the other. For these reasons, this study was designed to assess the previously mentioned issues.

## Materials and methods

**Study design:** Cross sectional survey study.

**Study time:** It was done from September 2016 to December 2016.

**Study sample:** It was a simple random sample.

**Sample size calculation:** It was calculated using Epi-info program version 6 with the total number of Egyptian Specialist in Obstetrics & Gynecology was 16608 (Statistics of Egyptian Medical Syndicate, December 2016). The least number of participants should be 163 with an 80% confidence limit, 50% expected frequency and 5% confidence level.

**Study tool:** The data were collected through a constructed self-administered questionnaire sheet. The questionnaire was validated with a readability and framework validation by eight gynecologists of varying seniority in the specialty. The comments and suggestions of these readers were considered and agreement obtained for the last edition of the questionnaire. The first part of the questionnaire included sociodemographic data as age, gender, residence, scientific degree,

experience years and place of work. The second part composed of 9 questions regarding attitude and practice of the gynecologist regarding type of hysterectomy in the form of:

1. Number of hysterectomies done /year
2. Type of hysterectomy done
3. Causes behind type of hysterectomy chosen
4. If there was cervical cancer screening program
5. Counseling of patients prior to hysterectomy,
6. Screening after hysterectomy
7. Number of cases of cancer cervix detected after subtotal hysterectomy/year
8. Indications of hysterectomy and
9. If patient was satisfied with the type of operation.

The third part was the participant recommendations. The questionnaire is presented in appendix 1.

### Methods of data acquisition

The questionnaire was distributed at wide variety of Egyptian Obstetrics and Gynecology conferences which were held during study duration. Moreover, questionnaire was sent to gynaecologists electronically via emails, WhatsApp, Twitter, and Facebook. The gynecologists who participated in questionnaire filled it and returned it to us. The filled in questionnaire was collected and statistically analysed.

### Study parameters

The studies parameters were the prevalence of each type of hysterectomy in Egypt, the factors affecting preference, attitude and practice among Egyptian gynecologists to route and type of hysterectomy, prevalence of counseling prior to hysterectomy and postoperative screening for cervical cancer.

## Results

The returned questionnaires were 172 complete sheets with a response rate 86%. The enrolled gynecologists (n=172) in this study were nearly of equal distribution regarding age, male to female ratio and residence. The great majority were working at general hospitals (56.4%), most of participants were Diploma qualified (44.8%) while Master degree was found in 66 participants (38.4%). the demographic characteristics of participants were shown in Table 1.

The predominant type of hysterectomy was the subtotal type whatever the age, gender, years of experience, or residence. The difference was the degree of qualification where in MD degree more total hysterectomies were preferred. Another difference was found in hospital type where total hysterectomy was preferred to the subtotal hysterectomy among university, educational and armed forced hospital. Age in general has no significantly affect the choice of hysterectomy route, but young gynecologists with experience less than 12ssyears were more operating total hysterectomies due to their enthusiasm to adhere to evidence based experiences and knowledge. These distributions were explained in Table 2.

The indications of hysterectomies were abnormal uterine bleeding

(97.1%); myomas (77.91%), pelvic pains (65.12%) and adenomyosis (25.60%) were the main indications. These indications were presented in Table 3.

**Table 1** Characteristics of study participants

Characteristics	No.	%
<b>Age groups</b>		
≤48 years	87	50.6
>48 years	85	49.4
<b>Gender</b>		
Male	82	47.7
Female	90	52.3
<b>Years of experience</b>		
≥ 12 years	102	59.3
<12 years	70	40.7
<b>Residence</b>		
Urban	88	51.2
Rural	84	48.8
<b>Hospitals</b>		
University Hospital	22	12.8
Educational Hospital	14	8.1
Insurance Hospital	18	10.5
Armed Forces Hospital	4	2.3
General Hospital	97	56.4
Private Hospital	17	9.9
<b>Degree of qualification</b>		
Diploma	77	44.8
Master	66	38.4
Medical Doctor	29	16.9

The causes of preference of subtotal hysterectomy over total one was mainly due to fear of complications of total one and the medico-legal issues related to these complications (90.1%), the fear of urinary injuries eg. Ureteric injuries were the cause in 133 participants (77.3%), the patient desire for sexual function was found in 113 participants (65.7%). Other causes were presented in Table 4.

Asking the participants about counseling of patients prior to hysterectomy, the follow up of cases after subtotal hysterectomies and the programs applied for follow up were explained in Table 5. Most gynecologists (84.9%) didn't counsel patients prior to hysterectomy. The great surprise was that nearly all gynecologists (98.3%) denied the adherence to cervical cancer screening programs after subtotal hysterectomies. The numbers of cancer cervix cases detected were very few due to shortage of follow up programs. The detection rate of cervical cancer was 30.2%. The recommendations in the last sections were to increase availability of screening programs for cervical cancer (14.54%), and regular workshops for safe total hysterectomy (79.65%).

**Table 2** Distributions of types of Hysterectomies according to characteristics of study participants

	Subtotal Hysterecto my N(%) 123(71.5)	Total Hysterectomy N(%)49(28.5)	Total N(%) 172(100)	X <sup>2</sup> (P)
<b>Age</b>				
≤48 years	62(71.3)	25(28.7)	87(50.58)	.005 (.942)
>48 years	61(71.8)	24(28.2)	85(49.42)	
<b>Gender</b>				
Male	55(67.1)	27(32.9)	82(47.7)	1.515(.218)
Female	68(75.6)	22(24.4)	90(52.3)	
<b>Years of experience</b>				
≥12 years	78(76.5)	24(23.5)	102(59.3)	28.7032 (0.00)*
<12 years	25(35.7)	45 (64.3)	70(40.7)	
<b>Residence</b>				
Urban	58(65.9)	30(34.1)	88(51.2)	2.776(0.096)
Rural	65(77.4)	19(22.6)	84(48.8)	
<b>Hospitals</b>				
University Hospital	1(4.5)	21(95.5)	22(12.8)	FE112.767(.000)*
Educational Hospital	1(7.1)	13(92.9)	14(8.1)	
Insurance Hospital	15(38.3)	3(16.7)	18(10.5)	
Armed Forces Hospital	0	4(100)	4(2.3)	
General Hospital	92(94.8)	5(5.2)	97(56.4)	
Private Hospital	14(82.4)	3(17.6)	17(9.9)	
<b>Degree of qualification</b>				
Diploma	77(100)	0	77(44.7)	96.979(.000)*
Master	45(68.2)	21(31.8)	66(38.4)	
Medical Doctor	1(3.4)	28(96.6)	29(16.9)	

\*significant FE:fisher's exact test.

**Table 3** Indications of Hystrectomy

Indication	No	%
Abnormal uterine bleeding	167	97.1
Myomas	134	77.91
Pelvic pain	112	65.12
Endometriosis/Adenomyosis	44	25.6

## Discussion

The aim of this survey was to detect the most common hysterectomy route preferred by Egyptian gynecologists and if there were relation to age, gender, experience years or the place of work. Although the sample size was small, this survey is considered the first survey in Egypt to evaluate the preference, attitude and practice for the route of hysterectomy among Egyptian gynecologists. Egyptian gynecologists preferred subtotal hysterectomy more than

total one for many reasons. The most common reasons were fear of complications (90.1%) particularly urinary tract injuries (77.3%). The other complications that lead to superiority of subtotal hysterectomy were fear of stump carcinoma, wound infection, vaginal shortening and stump dehiscence.<sup>9</sup> World wide gynecologists favor subtotal hysterectomy due to its lower complication rates and little sexual function impairment. They remove transformation zone to minimize the risk of cervix cancer.<sup>10,11</sup>

Recently evidence denoted that there is no significant difference between subtotal and total hysterectomies regarding complications (eg, infection; blood loss; urinary tract, bowel, or vascular injury) and post-operative outcomes (eg, sexual function, urinary function, or bowel function).<sup>7,8,12,13</sup>

Zekam et al.,<sup>14</sup> conducted a survey study to estimate the attitudes and practice of American gynecologists regarding total versus subtotal abdominal hysterectomy. A questionnaire on physicians' attitudes and practice regarding total versus subtotal hysterectomy was mailed to

1647 gynecologists with response rate was 51.2%. They found that most of responders (45%) preferred total hysterectomy to minimize risk of cervical cancer. Subtotal hysterectomies were done due to surgical difficulty with change of procedure. Most surgeons (63%) didn't counsel their patients regarding the route of hysterectomy.<sup>14</sup>

**Table 4** Reasons of choosing Subtotal Hysterectomy among gynecologist

Causes	No.	%
Little experience with total hysterectomy	28	16.3
No experience with total hysterectomy	90	52.3
Fear of complications of total hysterectomy	155	90.1
Fear of urinary injuries	133	77.3
Time of operation	101	53.7
Patient sexual function	113	65.7
Patient request	74	43
Financial causes	52	30.2
Lack of resources	18	10.5

**Table 5** Postoperative follow up and care after subtotal hysterectomy among the studied patients

	No.	%
<b>- Did you counsel patients prior to hysterectomy?</b>		
Yes	26	15.1
No	146	84.9
<b>- Did you follow cervical cancer screening program?</b>		
Yes	3	1.7
No	169	98.3
<b>- How many cases of cancer cervix you detected after subtotal hysterectomy / year?</b>		
None	120	69.8
1-5 cases	42	24.4
> 5 cases	10	5.8
<b>Recommendations of participants</b>		
No recommendations	10	5.81
Screening programs for cancer cervix	25	14.54
Regular workshops for safe total hysterectomy	137	79.65

Analysis of the current survey results denoted that whatever age, residence, or gender, subtotal hysterectomy was the preferred type among Egyptian gynecologists. The differences were present regarding qualification degree where MD degree gynecologists preferred total hysterectomy over the subtotal one. Another surprising issue was the years of experience where we found that young gynecologists with less than 12 year-experience preferred total hysterectomy to subtotal one due to their link to recent evidence based knowledge and enthusiasm. The most astonishing results were the shortage of counseling prior to hysterectomy, absence of strict follow up programs following subtotal hysterectomies and low detection rate of cancer cervix. Similar

results were also reported by Anderson et al,<sup>15</sup> in Danish population where 6.6% of patients after total hysterectomy adhered to screening programs.<sup>15</sup>

The clinical implications from this study are the importance of counseling prior to hysterectomy with explanation of hazards and benefits of each type, the importance of screening for cancer cervix after subtotal hysterectomy, increasing the adherence to evidence-based practice and utilize young gynecologists enthusiasm to minimize wide prevalence of subtotal hysterectomy. Also the recommendations of participant were valuable regarding holding regular workshops for safe total hysterectomy and increase the availability of screening programs for cancer cervix.

The strength of this study was based on its adherence and contact to wide range of gynecologists from different age, experience, residence, and hospitals. Also it is the first survey to address these topics in Egypt. The limitations of this study were the small sample size of participants.

## Conclusion

Subtotal hysterectomy was the most preferred type among Egyptian gynecologists. Many factors were beyond this attitude as fear of complications and especially urinary tract injuries. According to this study, neither counseling nor screening programs for detection of cervical dysplasia or cancer cervix were followed. Larger survey studies are required to assess Egyptian gynecologists' attitude towards the route of hysterectomy.

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## Conflicts of interest

The author declares there are no conflicts of interest.

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