HYSTERECTOMY;
Abdominal vs. Vaginal hysterectomy;
A retrospective study in
KASR EL-AINI hospital.

Submitted for complete Fulfillment of Master Degree in Gynecology and Obstetrics

Thesis
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List of abbreviations:

ACGO: American college of gynecology and obstetrics

AH: abdominal hysterectomy

BMI:basal metabolic rate

BSO:bilateral salpingo-oophorectomy

CHD: chronic heart disease

CI: confidence interval

LAVH: Laparoscopic assisted vaginal husterectomy

OR:odd ratio

SUI :steress urinary incontinence

TAH:total abdominal hysterectomy

USO:unilateral salpingo-oophorectomy

VH:vaginal hystercetomy

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Aim of work

- To evaluate the prevalence and the annual rates of hysterectomy in kasr al Aini hospital from 2007- 2008
- To compare the vaginal versus abdominal hysterectomy regarding (*patient age, indication, surgeon rank , Hb changes, hospital stay and rate of complications)*
- To compare total versus subtotal hysterectomy regarding (*patient age, indication, surgeon rank , Hb changes, hospital stay and rate of complications, blood transfusion)*
- To identify the preference towards prophylactic oophorectomy

Introduction

Hysterectomy Is the 2nd most commonly performed surgical procedure in the united state after cesarean delivery with approximately 600,000 per year[1]. By the age of 60 years, nearly 1 in 3 US women will have undergone a hysterectomy,[1] .It remains the mainstay of gynecological surgery despite the advent in recent years of conservative and minimally invasive treatment options for conditions such as menorrhagia and uterine leiomyoma. 90% of hysterectomy is performed on benign indications.[2] the indications for hysterectomy have changed little over the last decade[1]

Since the introduction of laparoscopic hysterectomy in 1989, [2] this procedure has been associated with shorter hospitalization, faster recovery, fewer postoperative infection compared with abdominal hsyterectomy[3, 4]. However, laparoscopic hysterectomy requires specialized training and potentially longer operating time [3].still laparoscopic hysterectomy remain the least performed approach.

In spite of a large number of alternatives for the management of benign diseases hysterectomy rates had remained stable, Laparotomy is still the most common route for hysterectomy, and also large prospective controlled trials and a Cochrane review have clearly shown that vaginal hysterectomy is the surgical route of choice for hysterectomy

The literature is full with studies that show that vaginal hysterectomy is associated with decreased incidence of complications, shorter length of hospital stay and convalescence, reduced hospital charges, and better quality of life outcomes, including decreased mortality rates. [2-9]

Many efforts had been placed into randomized controlled trials which compared laparoscopically assisted vaginal hysterectomy and total abdominal hysterectomy [17, 24] Total abdominal hysterectomies remains the last resort for definitive surgical treatment for uterine myoma, and uterine size seems to be of the risk factors of complications [19.]

While hysterectomy is considered a considerably safe operation , but still Total abdominal hysterectomy was the most common cause of small bowel obstruction (13.6 per 1,000 TAHs), and cesarean delivery was the least common cause (1 per 1,000 cesarean deliveries)". The rate of bladder injury during hysterectomy has been reported to range from 0.37 to 2%.49-51 more recent reports have placed the incidence consistently from 1% to 2%.[53] a history of previous cesarean section has long been regarded as a risk factor for incidental cystotomy at the time of hysterectomy

On the long run complications, although the association between hysterectomy and lower urinary tract dysfunction has been controversial, it is generally assumed that hysterectomy increases the risk for pelvic organ prolapse.[3] there is evidence of a difference in the rates of incontinence, constipation or measures of sexual function when comparing total versus a subtotal abdominal hysterectomy.

Review of literature

Indication of hysterectomy

In spite of a large number of alternatives for the management of benign diseases hysterectomy rates had remained stable, Laparotomy is still the most common route for hysterectomy, and also large prospective controlled trials and a Cochrane review have clearly shown that vaginal hysterectomy is the surgical route of choice for hysterectomy

The indication for abdominal or vaginal hysterectomy has changed little over the last decade, with the most common indications:

- Uterine Leiomyoma 33%
- Menstrual disorder 17%
- Genital Prolapse 13%
- Endometriosis 9% [1]

Table 1 indication of hysterectomy

Indication	No. of Patients	Percentage	Percentage Confirmed
Acute condition (emergencies)			
A-1 Pregnancy catastrophe[1]	27	1.5	93
2 Severe infection[2]	2	<1	100
Operative complication[1]	1	<1	100
Benign disease			
1 Leiomyomas[2]	522	29	86
2 Endometriosis[2]	95	5.3	92
3 Adenomyosis[2]	27	1.5	44
4 Chronic infection[2]	29	1.6	100
5 Adenexal mass[2]	146	8.1	100
6 Other[2]	1	<1	100
Cancer or premalignant disease (known)			
1 Invasive cancer[2]	164	9.1	100

2Preinvasive disease[2]	137	7.6	100
3 Adjacent or distant cancer[2]	6	<1	100
Discomfort (chronic or recurrent)			
1 Chronic pelvic pain[1]	144	8	80
2 Pelvic relaxation[1]	189	10.5	100
3 Stress urinary incontinence1	86	4.8	100
4 Abnormal uterine bleeding[1]	225	12.5	94
Extenuating circumstances (peer reviewed)			
1 Sterilization[3]	3	<1	100
2 Cancer prophylaxis[3]	5<1	100	
3 Other[3]	2	<1	100
Total	1,811	100	92
From Gambone JC, Reiter RC. Nonsurgical management of chronic pelvic pain: a multidisciplinary approach. Clin. Obstetric Gynecol. 1990;33(1):205-211,			

Author	Fibroid	Hemorrhage	Adenexal mass	Endometriosis
Acken	77%	6.1%	3.75%	7%
White	38%	10%	9.6%	3.3%
Dargent	59.8%	10%	25.3%	5%
Lansac	70%	21%	-	8%
Brun	63.5%	-	9%	13%
Body	66.7%	12.3%	15%	2.5%

Table 2 indication of abdominal hysterectomy according to author [133]

Table 3 indication of vaginal hysterectomy according to author [133]

author	Fibroid	Prolapsed	hemorrhage	Endometriosis
Coppenhaver 1962	5.8%	39.9%	38.9%	2.3%
White 1971	1%	76%	10%	-
Dargent 1980	48%	32%	17.8	5.7%
Reme 1992	24.4%	63.6%	4%	-
Burn 1993	38%	47%	-	6%
Body 1996	20%	59%	18%	1.6%

Optional therapeutic variation

- Total versus subtotal hysterectomy
- Abdominal , vaginal , or laparoscopically assisted vaginal hysterectomy
- Additional adenexal ablation

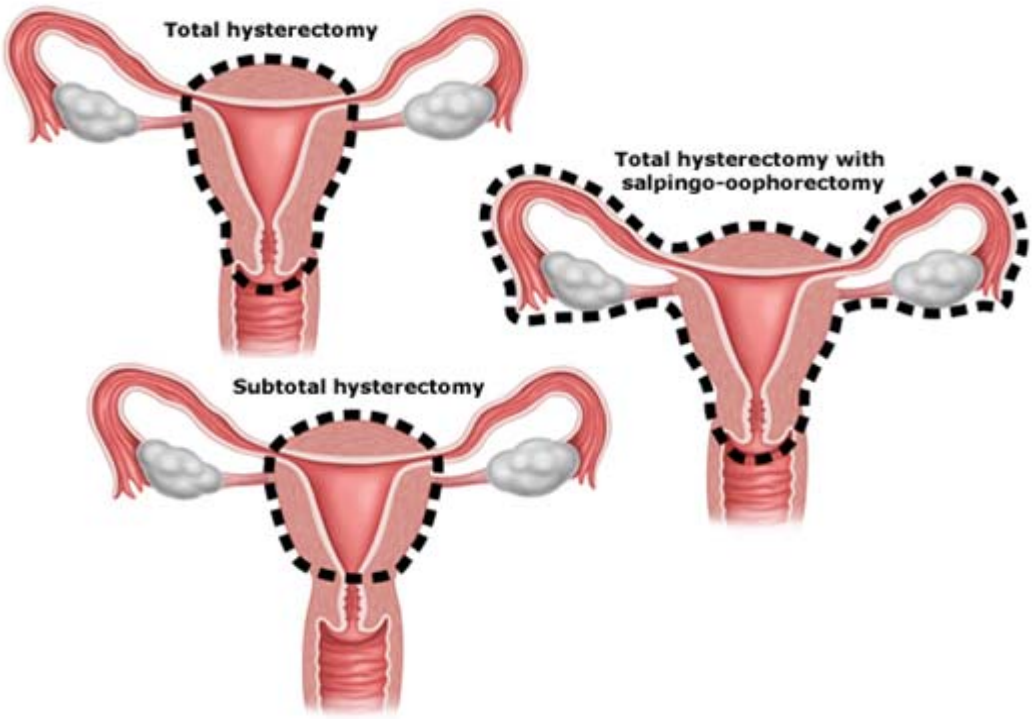

Figure 1 types of abdominal hysterectomy

Choice of route:

There are no specific criteria that can be used to determine the route of hysterectomy[10].

The route chosen should be based on the individual patient. A recent Cochrane review showed that vaginal hysterectomy is preferred by surgeons, Also still about 75% of hysterectomies are abdominal [10].