

Indications and Complications of Total Abdominal Hysterectomy for Benign Disease

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ABSTRACT

Objective: To describe the indications and complications of total abdominal hysterectomy for benign disease.

Methods: This is a descriptive study which was conducted at Prince Hashem Hospital, Zarqa-Jordan during the period July 2008 to July 2010. Sixty-three women aged 30-55 years old who underwent total abdominal hysterectomy who were histologically confirmed benign disease were enrolled in this study. Simple descriptive statistics (frequency and percentage) were used to describe the variables.

Results: The most common indications for total abdominal hysterectomy among the study group were uterine leiomyomas (52.4%), abnormal uterine bleeding (38.1%), and endometriosis (3.2 %). Other indications were pelvic inflammatory disease (1.6%), chronic pelvic pain (1.6%), adenomyosis (1.6%), and chronic infection (1.6%). The commonest complications were pain (96.8%), urinary tract wound infections (17.5%) and fever (15.9%) respectively.

Conclusion: Uterine leiomyomas were the most common indication for benign hysterectomy. Nearly all women reported long-term benefit from the surgery; however women should be warned about early transient adverse effects.

Key words: Abdominal hysterectomy, Complications, Indications, Leiomyoma.

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Introduction

Hysterectomy is the most common non-pregnancy related major surgical procedure performed in women.⁽¹⁾

One in three women in the United States and one in five women in the United Kingdom have a hysterectomy by age 60 years; this is usually performed for benign conditions.⁽²⁾

The highest hysterectomy rates occur among women who are less than 55 years old.⁽³⁾

International hysterectomy rates vary, with the highest rates in the United States and the lowest rates in Norway and Sweden.^(3,4)

The most common indications for total abdominal hysterectomy for benign disease are uterine leiomyomas followed by dysfunctional uterine bleeding and endometriosis.⁽³⁾

This study was conducted to describe the

indications and complications of total abdominal hysterectomy for benign disease.

Methods

This is a descriptive study which was conducted at Prince Hashem Bin Al-Hussein Hospital in a referral hospital located at Zarka, the third largest city in Jordan, during the period July 2008 to July 2010, where 63 women aged 30-55 years old underwent total abdominal hysterectomy who were histologically benign disease confirmed by endometrial biopsy. This procedure was performed for all study subjects.

A specially designed medical record abstract form was used to collect the relevant data.

The demographic characteristics, indications, and postoperative complications, were recorded along

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with all the result of histopathological endometrial biopsy.

All of the operations were performed by specialists or residents under the supervision of specialists; however the decision to undertake an abdominal hysterectomy was always made by a specialist. Emergency cases and malignancies were excluded.

The hospital stay was a minimum of three days. All patients received three doses of postoperative prophylactic antibiotics.

Simple descriptive statistics (frequency and percentage) were used to describe the variables.

Results

During the study period, there were a total of 63 women who underwent total abdominal hysterectomy for benign conditions. The commonest age range was 40-50 (76.2%) and most frequent parity was 4-6 (84.1%), as shown in Table I.

The indications for total abdominal hysterectomy are presented in Table II, the most common was leiomyomas (52.4%); abnormal uterine bleeding (38.1%), and endometriosis (3.2 %) respectively. Other indications were pelvic inflammatory disease, chronic pelvic pain, adenomyosis, and chronic infection which were 1.6% each.

The commonest complications were pain (96.8%), urinary tract and wound infections (17.5%) and fever (15.9%) consecutively.

About 16% of women who underwent hysterectomy needed blood transfusion, while 6.5% experienced complications related to anaesthesia. The other complications are demonstrated in Table III.

During the study period, there were neither maternal mortalities nor injuries to the bladder, ureters, or bowel.

Post-operative follow-up in the outpatient Gynaecology clinic for women in the study group after surgeries was as follows: Ten days, four weeks, six weeks, three months six months and one year.

Forty-seven (75%) of women had no complaints. The remaining still had pain and dyspareunia which were their initial symptoms. Two of the women developed endometriosis while the third had pelvic inflammatory disease.

Discussion

Abdominal hysterectomies remain one of the most widely performed surgical procedures in the world.

Despite a shorter length of stay, vaginal and laparoscopic hysterectomies remain far less common than abdominal hysterectomy for benign disease.⁽⁵⁾

The most common indications for hysterectomy are uterine leiomyoma and abnormal uterine bleeding.³ other indications include pelvic inflammatory disease and endometriosis.⁽¹⁻³⁾ This is in accordance with our findings where over 90% of women presented with uterine fibroids or abnormal bleeding.

Febrile morbidity is the most commonly reported adverse event after hysterectomy. Its incidence ranges from 9.1 to 37.4%.⁽⁶⁾ Risk factors reported in the literature include prolonged operative time, history of previous surgery, higher parity, greater blood loss, abdominal approach, and no antibiotic prophylaxis.⁽⁶⁾ In our study, 16% of the patients developed fever in the immediate post-op period and were appropriately treated with antibiotics.

Pain is another complication described by most patients. It is attributed to direct damage to tissue at surgery, adhesion formation, and nerve injury.⁽⁷⁾ Most women in our study needed pain relief for the whole of the post-operative period.

Numerous factors beyond clinical symptoms predict hysterectomy and satisfaction. Providers should discuss health-related quality of life, sexual function, and attitudes with patients to help identify those who are most likely to benefit from this procedure.⁽⁷⁾ We were quite satisfied with the overall three month patient satisfaction rate which indicated proper choice of patient selection for hysterectomy.

Pain persisting four months after hysterectomy is most often related to pre-operative factors rather than acute postoperative pain. The relative contribution of surgery itself is small.⁽⁸⁾

Changes in practice and shorter hospital stay may have affected the changes in inpatient hysterectomy rates and associated complications.⁽⁹⁾ It is now obvious that the idea of hysterectomy is more widely accepted by patients and physicians alike. It really does not matter whether the procedure is total or subtotal, as data from other researchers has shown no significant difference in the subtotal and total groups for the day-by-day recovery of general well-being in the preoperative and postoperative periods.⁽¹⁰⁾

In addition, data from the long-term outcomes of the total or Supracervical Hysterectomy Trial concluded that 9 years after surgery, participants maintained improvements and showed no major between-group differences in lower urinary tract or pelvic floor symptoms.⁽¹¹⁾

Table I: Age and parity of women who underwent total abdominal hysterectomy

| Age | Number | % | Parity | Number | % |
|-------|--------|------|----------|--------|------|
| ≤30 | 0 | 0 | Primipar | 1 | 1.6 |
| 30-40 | 9 | 14.3 | Para 1-3 | 2 | 3.2 |
| 40-50 | 48 | 76.2 | Para 4-6 | 53 | 84.1 |
| ≥50 | 6 | 9.5 | >Para 6 | 7 | 11.1 |
| Total | 63 | 100 | Total | 63 | 100 |

Table II: Primary indications for hysterectomy

| Indication | Number | % |
|-----------------------------|--------|------|
| Uterine fibroid | 33 | 52.4 |
| Uterine bleeding | 24 | 38.1 |
| Endometriosis | 2 | 3.2 |
| Pelvic inflammatory disease | 1 | 1.6 |
| Chronic pelvic pain | 1 | 1.6 |
| Chronic infection | 1 | 1.6 |
| Adenomyosis | 1 | 1.6 |

Table III: Complications of total abdominal hysterectomy

| Complication | Number | % |
|-----------------------------|--------|------|
| Pain | 61 | 96.8 |
| Wound infection | 11 | 17.5 |
| Urinary tract infection | 11 | 17.5 |
| Fever | 10 | 15.9 |
| Blood transfusion | 7 | 11.1 |
| Atelectasis | 4 | 6.5 |
| Respiratory tract infection | 2 | 3.2 |
| Bleeding | 2 | 3.2 |

*Totals do not add to 100% as women might have had more than one complication.

Pelvic organ fistula surgery is four times more common in women after hysterectomy compared with women not having the procedure. The highest fistula rates were observed the first year after surgery, after laparoscopic and total abdominal hysterectomy, and among older women as reported by the study conducted by Forsgren *et al.*⁽¹²⁾

Conclusion

In accordance with other studies we concluded that women with uterine fibroids and abnormal bleeding made up the bulk of the patients who underwent total abdominal hysterectomy. The only significant complication that we encountered was post-operative pain.

It is our view that larger studies with long-term follow-up are needed to identify those women who would benefit from undergoing hysterectomy in Jordan.

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