Original Paper

Received: April 29, 1996

Accepted: May 21, 1996

Gynecol Obstet Invest 1997;43:53-54

Reoperation Rates for Recurrent Ovarian Endometriomas after Surgical Excision

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Key Words

Endometriomas

Endometriosis

Recurrence rate

Abstract

This was a retrospective study analyzing the need for reoperation for recurrent endometriomas after surgical therapy. There were 104 women who were followed after surgical excision of endometriomas, with a cross section of 46 gynecologic surgeons. When using a life-table for follow-up analysis, only 2.9% of all patients had reoperation for recurrence, with a maximum recurrence probability of 7% at 32 months of follow-up.

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Introduction

The rate of endometrioma recurrence is reported to be between 7.6 and 19% based upon the follow-up of patients after surgical therapy, within a range of 3-12 months postoperatively [1-3]. This report seeks to record the reoperation rate for endometriomas up to 3 years after surgical excision for a group of 104 women.

Materials and Methods

Between the period of 12/31/1991 to 7/14/1993, 131 consecutive patients who underwent surgical excision of pathologically confirmed endometriomas were included in this study. All surgical procedures were performed at Brigham and Women's Hospital by a group of 46 surgeons. Follow-up was achieved by sending questionnaires to each surgeon involved with these cases and by using hospital records.

Women who were less than 50 years old, and women who had bilateral salpingo-oophorectomies were excluded (16 cases). Eleven patients were members of a local health maintenance organization that did not permit access to their records. The use of hormonal therapy, such as danazol or GnRH agonists, has been shown to cause size reduction in endometriomas [4]. Nineteen patients who received such therapy were only followed until the time at which such a regimen was started.

To account for patients lost to follow-up, a life-table with 4-month intervals was utilized. This design includes the probability of experiencing reoperation for recurrent endometrioma removal, the cumulative probability of remaining free of endometriomas that require surgical excision, and the probability of experiencing reoperation for recurrent endometriosis. In total, 104 patients remained for follow-up.

The average age for the patients was 34.26 ± 6.36 years. The average gravidity and parity were 0.49 ± 0.89 and 0.33 ± 0.78 , respectively. The major preoperative diagnoses included 59 with pelvic masses (59%), 29 with endometriosis (28%), 6 with infertility (6%), and 10 with other preoperative diagnoses (9.6%). Three patients (2.9%) were pregnant at the time of surgery. Fifty-eight (56%) of the operations were done using laparoscopic procedures, while 46 (44%) were done by laparotomy.

The average revised American Fertility Society (1985) score for this group was 29.8 ± 12.56 . Sixty-three patients (61 %) had endometriomas with a diameter of 4 cm or greater. Twenty-seven cases (26%) involved unilateral oophorectomies, leaving a total of 183 ovaries used for follow-up.

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Table 1. Life-table analysis of endometrioma recurrence as noted by reoperation

Intervals (4 months)

1
10
11

Number followed Number lost

Number reoperated for endometrioma Probability of endometrioma recurrence Number reoperated for endometriosis Probability of endometriosis recurrence Cumulative probability of being endometrioma-free

57 10
32 10
64
21
11
47
40
37
104 38

0.99 0.99 0.99 0.97 0.97 0.97 0.97 0.90 0.90 0.90 0.90

Note that 2 out of the 3 patients with recurrence had received hormonal therapy after the first operation.

Results

Of the 104 patients followed, the mean length of follow-up was 15.98 ± 13.01 months, with a range from 0.5 to 43.9 months. Five patients (4.8%) had hysterectomy at the time of the first operation, while 2 (1.9%) had hysterectomy at a later date.

Three patients required reoperation for endometrioma after being followed for 30 months, 14 months, and 1 month. The latter 2 patients were recipients of hormonal therapy. The maximum probability of experiencing recurrence was 7% in the eighth interval (up to 32 months) after

initial surgery. The maximum cumulative probability of remaining free of endometrioma was 90% (table 1).

table, the maximum probability in any 4-month interval is only 7%. Therefore, these data suggest that the reoperation risk is low.

Most previous studies have reviewed the recurrence risk based on the experience of a small number of surgeons highly skilled in the surgical treatment of endometriomas. In contrast, this study demonstrated that the aggregate results of 46 different gynecologic surgeons was good, with only a 2.9% reoperation rate being observed.

The general population of women having endometriomas surgically excised appears to have a good chance of avoiding reoperation for recurrence. Surgical excision of endometriomas, as performed by a broad cross section of surgeons, is quite effective at disease eradication.

Discussion

When investigating laparoscopic versus laparotomy as methods of endometrioma excision, Bateman et al. [2] noted a recurrence rate of 19% for laparotomies and 11.1% after a 12-month follow-up period. Wood et al. [3] found a 13.4% incidence after 12 months. Using a period of follow-up between 3 and 6 months, Canis et al. [1] reported a 7.6% incidence of recurrent endometriomas. Direct comparisons of such studies are difficult due to varied follow-up intervals and data reporting [1-3]. Despite this fact, a general range of recurrence rates can be inferred from these studies.

In this study, the total number of recurrences was only 3 (2.9%). A precise range for the recurrence rate is difficult to determine due to the small number of cases. When taking into account the loss to follow-up with the life-

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