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Results of Conservative Surgery for Ovarian Endometriomas in Ramathibodi Hospital*

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ABSTRACT

Objective To study the outcomes of conservative surgery for ovarian endometriomas, with and without adjunctive medical therapy.

Study Design Retrospective descriptive study.

Setting Department of Obstetrics and Gynecology, University Hospital.

Subjects Two hundred and twenty two women who had undergone conservative surgery for ovarian endometriomas in Ramathibodi Hospital from January 1990 to December 1993.

Intervention Medical records were scrutinized. Patients who were lost to follow–up were called for examination or interviewed by post or telephone.

Main Outcome Measures The annual and 3–year cumulative recurrent and pregnancy rates

Results Of 222 patients, 155 had completed 3 years follow–up (70 %). Seventy patients who had conservative surgery alone had 1, 2 and 3 year cumulative recurrent rates of 5.71, 17.14 and 17.14 %, respectively. Eighty five patients who had medical therapy after surgery had 1, 2 and 3 year cumulative recurrent rates of 1.17, 7.06 and 15.29 %, respectively. Among 107 patients who were desirous of pregnancy, 59 patients who had surgery alone had 1, 2 and 3 year cumulative pregnancy rates of 6.78, 18.64 and 20.34 %, respectively, while 48 patients who had medical therapy after surgery had 1, 2 and 3 year cumulative pregnancy rates of 2.08, 8.33 and 16.66 %, respectively. When all 212 patients were analysed using survival analysis, survival probability in the third year were 0.816 and 0.845 in patients who had con servative surgery without and with adjunctive medical therapy, respectively.

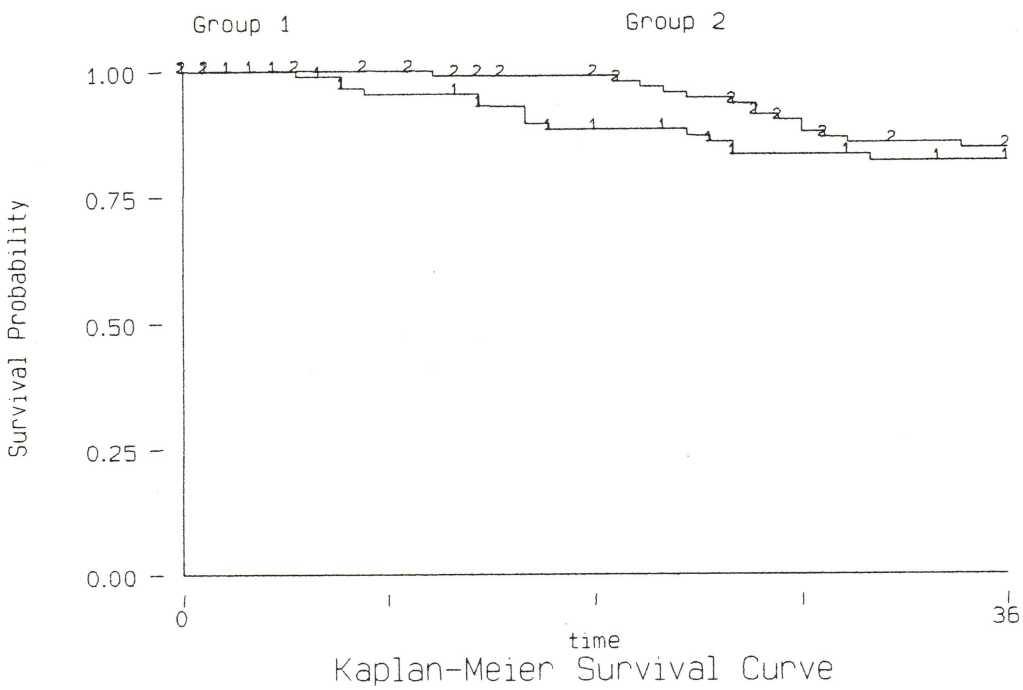
Conclusions High recurrence and low pregnancy rates after conservative surgery for ovarian endometriomas were observed irrespective of adjunctive medical therapy. Further randomized controlled–trials should be conducted to find the optimum therapeutic regime for these patients.

Key Words : endometrioma, conservative surgery, recurrence, pregnancy

Pelvic endometriosis is a common disorder among women of reproductive age[1]. Its prevalence is about 25 – 35 % among infertile women, causing distressing symptoms ranging from dysmenorrhea, dyspareunia, infertility, menstrual abnormalities to pressure symptoms.

Table 3. Cumulative pregnancy rates in patients desirous of pregnancy with complete 3 years follow–up.

	No	N (%)			Mean (months)
		1st year	2nd year	3rd year	
Total patients	117	5 (4.27)	15 (12.82)	20 (17.09)	17.80
Surgery alone	59	4 (6.78)	11 (18.64)	12 (20.34)	14.75
Adjunctive medical treatment	48	1 (2.08)	4 (8.33)	8 (16.66)	25.25
DMPA	14	0	0	1 (7.14)	35.00
Danazol	17	0	1 (5.88)	3 (17.65)	27.33
Norethisterone	8	0	1 (12.50)	1 (12.50)	18.00
Oral pills	7	1 (14.29)	2 (28.57)	3 (42.86)	22.33
DMPA→oral pills	1	0	0	0	0
Danazol→DMPA	1	0	0	0	0



Group 1 = patients who undergone conservative surgery alone
Group 2 = patients who had adjunctive medical therapy after surgery

Fig. 1. Survival curve of the patient

Discussion

In this study, we have collected data from patients with ovarian endometrioma who had undergone conservative surgery at Ramathibodi hospital from January 1990 – December 1993. All of the patients were in reproductive age and all were classified as stage III and IV according to the Revised AFS classification 1985.[2]

Patients who had completed three years of follow–up were categorized into two main groups, one group of 70 patients had undergone surgery alone and the other group of 85 patients had adjunctive treatment after surgery. The maximal rate of recurrence occurred in the second year after surgery alone. The

recurrent rate were rather low in the first year after surgery in the group with adjunctive medical therapy which is supposedly due to the suppressive effects on the endometriotic implants from medical therapy during that period. But on the second and third year, after the pharmacologic effect subsided, the recurrent rate accelerated to comparable level observed in the group with surgery alone.

The recurrent rates varied among studies. Previous studies reported the cumulative recurrent rates in the third postoperative year of about 10.5 – 32 %.[3-5] Because many variables can influence the estimated rate of recurrence, it is difficult to compare the results of different studies.[6] There were differences in severity of the disease, operator's skills, surgical techniques and method of recurrence detection. In Ramathibodi Hospital, most recurrences were diagnosed merely by pelvic examination and ultrasonography, only patients with positive findings from these methods would undergo laparoscopy or reoperation, thus yielding less sensitivity than those studies which performed laparoscopy for diagnosis of recurrence, resulting in higher recurrent rates than our study.

Since the present study was a retrospective descriptive study, the differences in both groups could not be statistically compared because many variables had not been controlled, such as skill and techniques of the surgeons, extent of residual disease after surgery. But as both groups had seemingly similar distribution of age groups and stages of disease, it appeared as if the postoperative medical therapy could not prevent but only postpone the recurrence of disease, as manifested by the comparable cumulative recurrent rate in the third postoperative year. The mean disease–free interval in each groups differ about 10 months which corresponds to the duration of medical treatment. This is consistent with the German Endometriosis Foundation Study in 1992 which demonstrated no statistically significant differences in the recurrent rates between different surgical, medical or any combined treatment groups.[5]

When all 212 patients were analysed using survival analysis, survival probability in the third year were 0.816 and 0.845 in patients who had conservative surgery without and with adjunctive medical therapy, respectively, which correspond to the study of Redwine[4] who also use survival analysis. In this study, each regimen of medical treatment appeared to have similar recurrent rates although the number of the patients in each regimen were rather small.

Regarding fertility after surgery among patients desirous of pregnancy, including infertile patients and patients without contraception, the maximal pregnancy rates were in the second and third postoperative year in patients without and with adjunctive medical therapy, respectively. There was 10.5 months difference in the time to recurrence between the two groups. Further postoperative medical therapy seemed just only to postpone pregnancy, corresponding to other studies which indicated that medical therapy did not increase pregnancy rate[7] and should be avoided in infertile patients who need immediate pregnancy because the chance of conception is usually highest in the first postoperative year.[8]

Pregnancy rates in our study were considerably lower than other studies, which demonstrated about 31.5 – 35% pregnancy rate in the first postoperative year[9-11] and 5 year cumulative pregnancy rate of 50%.[3] These studies usually recruited infertile women who had completed infertility investigations and had any other abnormalities corrected. Many patients in this study did not attend infertility clinic and some did not concern about their infertility problems, thus having no further infertility evaluation and treatment. All of these factors might account for our lower pregnancy rates.

Conclusion

It appeared that the adjunctive medical therapy did not decrease the recurrent rates nor increase the pregnancy rates in long term. Whether or not adjunctive hormonal therapy should be given, the benefit of postponing recurrence should be weighed against the side effects, expenses, and compliances, especially among patients desirous of pregnancy.

Nevertheless, further randomized controlled trials should be conducted with controls of variables such as age, stage of disease, operator, surgical techniques and residual disease as well as the utilization of more sensitive and accurate methods for recurrence detection such as laparoscopy, to clarify the real benefit of postoperative medical therapy.

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