

LAPAROSCOPIC TREATMENT OF OVARIAN TUMORS

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SUMMARY

Laparoscopic treatment of ovarian cysts is fast emerging as the treatment of choice for a large variety of ovarian tumors. This study presents 46 patients with ovarian cysts who were treated through the laparoscope. The chances and risks of inadvertent operating of a malignant tumor are also discussed.

INTRODUCTION

The presence of an ovarian tumor at any age is to be considered a serious matter and one which deserves attending to in the speediest and safest manner possible. The myriad complications which can occur with an ovarian tumor are well known and include torsion, rupture, malignant change, impaction etc. In patients below the age of 20 years and in patients above the age of 40 years the possibility of malignancy is a very real one. Keeping this fact in mind a concomittant hysterectomy with bilateral salpingoophrectomy is recommended for patients with ovarian tumors above the age of 40 years.

All these years the treatment of ovarian

tumors has been by laparotomy. Now with the advent of laparoscopy these tumors can be tackled through the laparoscope. The many advantages of laparoscopy include faster recovery, reduced morbidity and reduced adhesion formation postoperatively.

MATERIALS AND METHODS

At the Nowrosjee Wadia Maternity Hospital a total of 46 patients with ovarian cysts were treated laparoscopically.

All the patients were evaluated completely by physical examination and transabdominal and transvaginal ultrasound. The predominant symptoms and signs were pain, infertility, menstrual irregularities and mass in the pelvis in descending order of frequency.

The surgeries were all performed under

epidural or general anaesthesia. A 10 mm trocar was used for the telescope and 5 mm trocars were used for the accessory instruments.

After scanning the entire pelvis and upper abdomen the surface of both the ovaries was scrutinised and evaluated for malignant potential. Only benign appearing neoplasia were tackled by laparoscopy.

The ovary was gently mobilised by the grasping forceps. The size and intraovarian location of the cyst were determined in order to select the proper site for the incision of the ovarian albuginea. The antimesenteric portion of the ovary away from the blood vessels of the hilus was chosen in almost all the cases.

After incising the ovary the cyst wall was grasped the ovary being stabilised with another grasping forceps. The length of

incision was adapted to the size of the cyst. The cyst wall was then gently and progressively stripped from the ovary. The ovarian wound was then irrigated and haemostasis completed whenever necessary. The ovarian incision was approximated with vicryl 2-0 sutures. The excised tissue was removed from the abdominal cavity with the help of the grasping forceps. Lavage of the pelvis and aspiration of all debris completed the procedure.

In the large majority of patients the operating time was not more than 1 hour. Most of the patients were discharged on the 2nd/3rd day.

RESULTS

The majority of the patients were in the age group of 20-25 years followed by those in the age group of 25-30 years. (Table I)

Table I
Agewise distribution of cases

	Age				
	<20 yrs.	20-25 yrs.	25-30 yrs.	30-40 yrs.	>40 yrs.
Number of patients	none	24	18	4	none

Table II
Distribution of the cysts as per Histology

Type of cyst	Number
Simple serous cysts	11
Papillary serous cysts	1
Benign cystic teratomas	5
Endometriomas	10
Mucinous cystadenomas	3
Par ovarian cysts	2
Functional cysts	14

Table III
Concomitant Pathologies

Pathology	Number of cases
Adhesions	9
Tubal block	2
Hydrosalpinx	2
Endometriosis elsewhere in the pelvis	2
Fibroid	1

Table IV
Procedure done

Aspiration alone	Aspiration and excision of the cyst wall	Aspiration and cauterization of the cyst wall	Oophorectomy
12 cases	31 cases	3 cases	1 cases

Table V
Concomitant Procedures done

Procedure	Number of cases
Salpingoneostomy	2
Adhesiolysis	9
Aspiration of hydrosalpinx	2
Cauterisation of endometriotic implants	2
Excision of subserous fibroid	1
Fimbrial dilatation	1

Cysts were present bilaterally in 3 cases and were unilateral in 43.

The most commonly found cysts were functional cysts followed by simple serous cysts, chocolate cysts, dermoids, mucinous cystadenomas, parovarian cysts and pap-

illary serous cystadenomas in that order (Table II).

Sixteen patients had concomitant pathologies like adhesions, tubal blocks, hydrosalpinges, evidence of endometriosis elsewhere in pelvis besides the ovary and

fibroids (Table III).

Thirty One patients underwent aspiration and excision of cyst wall while 12 underwent only aspiration; 3 underwent aspiration and cauterisation of cyst wall and 1 patient underwent oophorectomy (Table IV).

In 17 cases concomitant procedures were performed as shown in (Table V).

No malignancy was detected. There were no complications necessitating laparotomy.

DISCUSSION

Ovarian surgery is one of the most commonly performed laparoscopic procedures. Increased use of pelvic imaging in gynecology explains why more and more ovarian masses are encountered. Careful selection of cases is mandatory because the risk of treating an unsuspected malignancy is a very real one. In a recent survey 42 such cases were reported. (Maiman et al 1991).

The risk factors for ovarian malignancy are absence of child birth or pregnancy, infertility, middle or higher socioeconomic status, age more than 50 years, positive family history and no O.C. use. The main ultrasound findings which are suspicious for malignancy are size more than 5 cms. in diameter, the presence of thick septae, solid parts or papillary projections, bilaterality, indefinite margins and the presence of ascites. One would estimate that approximately 5% of all ovarian unilocular masses are neoplasms and only approximately 5% of ovarian neoplasms are malignant. Thus the absolute risk of malignancy in an ovarian mass that appears unilocular on preoperative ultrasound

examination is 0.25% or 2.5 in 1000. (Hermann et al 1984, Grandberg et al 1990). CA125 is a commonly used marker for epithelial ovarian neoplasia. When used alone it has a positive predictive value of 36% for premenopausal women and 87% for postmenopausal women with pelvic masses. (Finkler et al 1988). A combination of various tests with the gross appearance of the cyst fluid allows a correct diagnosis in most cases. IN the 1990 A.A.G.L. survey of ovarian masses it was found that of all the patients with ovarian cysts managed by laparoscopy alone about 0.4% proved to have cancer that was not diagnosed at the time of the surgery. (Hulka et al 1992). Ultrasound guided cystoscopy using a 0.5 mm scope is still under evaluation.

As in other surgical laparoscopic procedures various complications can occur. However in 2 large series with a combined number of cases close to 1,000 no such complications have been reported. (Mage et al 1987, Fayez and Vogel 1991). Excluding endometriomas the fertility rates after laparoscopic management of ovarian cysts is satisfactory (Canis et al 1992). Recurrence of the cyst is also more common for endometriomas; it has not been proved that complimentary medical treatment following the laparoscopy reduces the risk.

CONCLUSION

Laparoscopic treatment of benign ovarian neoplasia can be properly achieved in the great majority of cases. The advantages of laparoscopic surgery are now well established, but such surgery requires adequate instrumentation and training. Laparoscopic operative techniques for ovarian neoplasia are now standardised and

results compare favourably with surgery by laparotomy.

REFERENCES

1. Canis M., Mage G., Wattiez A.: *Fert., Contr., Sexual.*: 1992 (in press)
2. Favez J.A. and Vogel M.F.: *Obstet. and Gynec.*: 78, 661, 1991.
3. Finkler N.J., Benacerraf B., Lavin P.T., Wojciechowiec C. & Knapp R.C.: *Obstet. and Gynec.*: 72, 659, 1988.
4. Grandberg S., Norstorm A., Wikland A.: *Gyn.Oncology*: 37, 224, 1990.
5. Hermann U.J., Locker G.W., Goldhirsch A.: *Obstet. and Gynec.*: 69, 777, 1984.
6. Hulka J.F., Parker W.F., Surrey M.W., Philips J.M.: *J. of Repro.Medi.*: 37, 559, 1992.
7. Mage G., Canis M., Manhes H., Pouly J.L. and Bruhat N.A.: *J.de Obstet. Gynec. et Biologie de la Repro.*: 16, 1053, 1987.
8. Maiman M., Seltzer V., Boyce J.: *Obstet. and Gynec.*: 77, 563, 1991.