

Ovaries retained at Hysterectomy 'A Boon or Bane'

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Summary: The present study deals with 16 patients who underwent relaparotomy over a 4 years period (1991-1995) for painful ovarian masses 1-9 years following hysterectomy. The study highlights the problems of retained ovaries with two cases of advanced ovarian malignancy. One patient had endometrioid carcinoma where hysterectomy was done for fibroid and endometriosis, other had poorly differentiated adenocarcinoma and prior hysterectomy was done for D.U.B. In rest ovarian masses were benign but bothersome pain in lower abdomen and mass necessitated relaparotomy. In 7 patients extensive pelvic adhesions made laparotomy difficult and painstaking and one patient sustained bladder injury during surgery.

Introduction

Ageing normal ovaries present a dilemma at the time of hysterectomy specially with wide availability, documented safety and beneficial effects of hormone replacement therapy. The choice lies between short term gains of ovarian functions on the one hand and long term risk of ovarian malignancy (with consistently poor survival rate) and need for relaparotomy with its attendant surgical risks for benign, painful condition of residual ovaries on the other hand. The present study reviews the problems of 16 patients who had relaparotomy for retained ovaries.

Material & Methods

The study comprises of 16 patients who underwent laparotomy for painful ovarian masses 1-9 years following hysterectomy. The diagnosis of ovarian masses was confirmed with ultrasound. Both ovaries were removed at laparotomy and sent for histopathological examination.

In 6 patients, hysterectomy had been done when they were less than 40 years of age. In 9 patients between the age of 40-45 years and in one patient above the age of 45 years. Interval between hysterectomy and laparotomy ranged from 1-9 years. Six patients had undergone relaparotomy 1-3 years following hysterectomy. 8 patients between 3-6 years and in two patients interval between 3-6 years and in two patients interval between hysterectomy and laparotomy was 6-9 years. Indications for hysterectomy are given in table I. All patients had total abdominal hysterectomy and in 6 patients

hysterectomy was done with unilateral salpingo-oophorectomy.

Table No. 1

1. Age at Hysterectomy	No. of Patients
< 40 Years	6
40-45 years	9
> 45 years	1
2. Interval between hysterectomy & Laparotomy	
1-3 Years	6
3-6 Years	8
6-9 Years	2
Indication for Hysterectomy	
a. D.U.B.	6
b. Fibroid Uterus	3
c. Endometriosis	5
d. Fibroid Uterus with Endometriosis	2
4. Type of Hysterectomy	
TAH	10
TAH with Unilateral Salpingoophorectomy	06

Pain in lower abdomen had been the presenting symptom in all patients except two. In one patient, the pain was acute, necessitating emergency admission. This was a patient of infertility who had 3 previous laparotomies for fibroids and endometriosis. During this admission she had the 4th laparotomy at which time she had endometrioid carcinoma and pain was due to acute rupture of cystic part of this tumour. In rest of the patients the pain was dull and continuous which was attributed to

Table II

1. Symptomatology of Residual Ovaries	No. of Patients
Dull Pain in Lower abdomen	8
Acute Pain in Abdomen	1
Pain with Urinary Symptoms	4
Pain with Bowel Symptoms	1
Persistent Vaginal discharge	1
Weight Loss	1
2. Histopathological Report of Ovaries	
Poorly Differentiated Adenocarcinoma	1
Endometroid Carcinoma	1
Pseudomucinous Cystadenoma	1
Simple Ovarian Cyst	7
Endometriotic Cyst	4
Cystic Haemorrhagic Corpora Lutea	2

pelvic adhesions and continued ovarian activity. In 4 patients pain was associated with urinary symptoms, two patients had bowel symptoms with pain, one patient presented with history of weight loss and another patient complained of vaginal discharge only. Family history of ovarian malignancy was present in one of two patients who developed ovarian malignancy.

Laparotomy was difficult and painstaking in 7 patients because of extensive pelvic adhesions and one patient sustained bladder injury during surgery.

Discussion

Ovaries preserved at hysterectomy are a boon provided they serve the intended purpose for a long time. Ovarian function wanes more rapidly after hysterectomy. In 34% of the women, ovarian failure occurs within two years of hysterectomy. In 54% within 4 years. Mean age of ovarian failure after hysterectomy is 4 years earlier as compared to women who attain natural menopause (Siddle N et al 1987). Histological study of ovarian biopsy performed one year after hysterectomy in animals showed 87% reduction in follicle reserve though there was no decrease in estradiol and progesterone levels. (T.C.L. Saravelos 1994).

Even without hysterectomy the ovaries normally begin to fail from the age of 40 years which is clearly shown by marked decrease in fertility, decreasing plasma oestrogen level, occurrence of climacteric symptoms before cessation of periods and decline in bone density from the peak bone mass found at this age (Studd J. 1989).

Actual incidence of carcinoma in retained ovary is difficult to estimate. The generally used 0.2% lifetime prospective cancer risk based on many papers is invalid because a large cohort of women have not been studied until death. This prospective cancer risk is nothing more than guess work. On the other hand, it is easy to determine which women with ovarian cancer had previously had a hysterectomy when the ovaries could have been removed. From many studies it is clear that between 7-15% of patients could have been saved from subsequent ovarian cancer by prophylactic oophorectomy at no extra surgical time or risk (Studd. J. 1989).

In the present study two out of the 16 patients who needed laparotomy for residual ovaries had malignancy and the disease was stage III at the time of laparotomy. Interval between hysterectomy and laparotomy was 6 and 9 years respectively in these two cases. The reported time interval between hysterectomy and diagnosis of ovarian cancer ranged from 13 months to 49 years and in 52.6% the disease was stage III at the time of diagnosis (Sightler et al 1991). The author also concluded that prophylactic oophorectomy in women undergoing hysterectomy at age 40 years or older would have prevented 79% ovarian cancer cases.

Women with family history of ovarian cancer are at increased risk of acquiring disease. The daughter or sister of a patient with ovarian cancer has a high ovarian cancer risk of 10% at the age of 40, 30% at the age of 60 and 40% at the age of 70 years (Meiger W J 1992). In our study one of the two patients with ovarian malignancy had ovarian cancer in her mother.

Considering that normal ovarian function wanes more quickly after hysterectomy after the age of 40 years, should then the normal looking ovaries be preserved with all inherent potential for disease with wider availability

of replacement therapy. There is anxiety about the risk of breast cancer developing in women with prolonged use of oestrogen. In a prospective, randomised, placebo controlled study, 84 Postmenopausal women on hormone replacement therapy were followed up for 22 years with no resultant increase in the incidence of carcinoma breast (Nachtigal et al 1992). A Meta-analysis of various studies assessing the relationship between oestrogen use and breast cancer risk showed no increased risk of breast cancer with use of oestrogen replacement et al (Colditz GA 1993). No increased risk of breast cancer has been found with long term use of physiologic doses of conjugated equine oestrogen (Mishell et al 1994).

If there is a family history of ovarian cancer or hysterectomy is being performed for endometriosis the option of oophorectomy should be given to younger patients, if apparently normal looking ovaries are preserved in women with endometriosis. The chances for further laparotomy for pelvic pain are 47% (Montgomery & Studd 1987). In the present study 7 out of 16 patients who needed relaparotomy had endometriosis at hysterectomy. Relaparotomy with adhesion becomes quite difficult at times with risk of injury to ureter or bladder.

What then should be offered to a woman undergoing hysterectomy for a benign disease? All women above the age of 40 should be counselled for prophylactic oophorectomy. The benefits should be clearly explained and oestrogen replacement offered to these women.

The ultimate decision of course, should rest with the patient if the women despite the inherent risks of ovarian preservation decides upon it, her wishes should be honoured. In future, as the patients become more aware and the clinicians more enlightened on the long term benefits and risks of hormone replacement therapy, decisions might be easier for the patients and the clinicians alike.

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