#### WHY OVARIAN REMOVAL AT HYSTERECTOMY?

by

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#### SUMMARY

Among the 688 patients followed-up after hysterectomy, 479 had both ovaries conserved and in 44 one ovary was removed of the 523 patients who had either both ovaries conserved or one ovary removed, to-date none had reported with an ovarian tumour. It was noted that ovarian conservation does not prevent development of menopausal, but bilateral oophorectory makes a very high percentage of women suffer from menopausal symptoms.

#### Introduction

It has been well conceived that healthy ovaries maintain the normal steroidogenic function to the age of menopause irrespective of the uterine status. For women undergoing hysterectomies at younger years the left back ovaries continue to function normally with all cyclical changes to the natural age of menopause. If the ovaries are diseased or ovarian blood supply was damaged at the time of hysterectomy, probably the woman may go for premature menopause.

The complications of oestrogen withdrawal in the form of oophorectomy are well recognised. Cardiovascular unstability, osteoporosis, genitourinary atrophy and psychosexual problems are the biological expressions of menopausal symptoms which are closely associated with removal of ovaries. Quite a number of these patients require oestrogen supplementation for them to lead a normal life.

Notwithstanding these facts, oophorectomies are liberally performed at the time of hysterectomies done for benign uterine disorders. The main and the only explanation advanced for such ovarian removal is the possibility of neoplastic changes in the left back ovaries.

It is unjustifiable to remove the ovaries indiscriminately and pave the way for menopausal symptoms in all subjects in order to just prevent the development of ovarian neoplasm which by itself is a very rare occurrence. To substantiate our views we have analysed the follow-up data of 688 patients who had undergone hysterectomy over a period of 5 years.

Patients undergoing hysterectomy over a period of 5 years, beginning from 1978, were sent advice cards to report for follow-up. The study was initiated by the middle of this year and was completed by 2 months time. The various indications for hysterectomy included benign and malignant diseases of the uterus and adnexa and uterine prolapse.

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## Follow-up data Collection

The patients were asked specific questions regarding symptoms related to vasomotor instability, genitourinary atrophy, osteoporosis and sexual problems. A general survey of the patient which included general examination, systemic examination including regular recording of blood pressure and genital examination was performed. Any evidence of vaginal hypo-oestrogenism was looked for and any other abnormalities if located was made a note of. Vaginal smear was taken for cytology. Necessary advice was given for those requiring treatment.

## Analysis

Among the 668 patients who reported for post-hysterectomy follow-up 479 (69.62%) had undergone hysterectomy alone, 165 (23.98%) had undergone hysterectomy with bilateral salpingo-ooporectomy and 44 (6.39%) had hysterectomy with unilateral salpingo-oophorectomy.

## 30 years and below

There were 64 subjects in this age group. Among them 55 had bilateral ovarian conservation, and 49 of them (89,99%) had no menopausal symptoms, and similarly none of the 5 subjects who had unilateral ovarian conservation also had any menopausal symptoms. Whereas 3 of the 4 subjects who had panhysterectomy (75%) had menopausal symptoms.

#### 31 to 35 years

Among the 86 patients in this age group, 64 had bilateral ovarian conservation, and among them 51 were symptom free (79.69%). Ten of the 14 subjects (71.43%) who had unilateral conservation of ovary were also symptom free. Whereas 50% (4 of 8 subjects) undergo-

ing panhysterectomy had developed menopausal symptoms.

#### 36 to 40 years

Of the 104 hysterectomised women in this age group, 70 had only hysterhectomy performed and among them 46 were symptom free (65.71%), among the 13 subjects who had unilateral salpingo-oophorectomy 8 were symptom free (61.54%), but only 4 of the 21 who had panhysterectomy were symptom free (19.05%).

#### 41 to 45 years

There were 156 patients in this age group. Among them 92 had only uterine removal and of them 47 (51.09%) were free of menopausal symptoms, similarly 4 out of 8 subjects who had unilateral ovarian conservation (50%) were symptom free. At the same time following bilateral salpingo-oophorectomy, except 3 (5.36%), all the 56 patients had developed menopausal symptoms.

# 46 to 50 years

Seventy-four patients had bilateral ovarian conservation at hysterectomy and 31 failed to develop menopausal symptoms (41.89%). The only patient who had unilateral ovarian conservation also failed to develop any symptoms. However, when both ovaries were removed 42 of the 46 patients (91.30%) developed menopausal symptoms.

#### Above 50 years

There were 124 subjects in this age group who had bilateral ovarian conservation, and practically all of them were operated for genital prolapse. Among them 99 (19.84%) had menopausal symptoms, but at the same time among the 30 patients who had pan-hysterecomy, 28 had menopausal symptoms (93.33%).

# Incidence of ovarian tumour in the preserved ovaries

Among the 688 patients follow-up after hysterectomy over a period of 1 to 5 years, there were 479 patients in whom both ovaries were conserved at hysterectomy, and 44 patients in whom one ovary was conserved at hysterectomy. Of the total 523 patients who had either both or one ovary conserved at hysterectomy, todate none had reported with an ovarian tumour warranting laparotomy. This was the observation made at the time of the bimanual pelvic examination performed at the follow-up visit.

#### Comments

From this study it is evident that ovarian conservation at hysterecomy does not prevent development of menopausal symptoms in all patients, but certainly bilateral oophorectomy as against ovarian conservation makes a very high percentage of women suffer from problems of menopause.

Why ovarian conservation has not prevented menopausal symptoms in all subjects undergoing hysterectomy is a question that can be answered as follows: When the age group is analysed it is evident that the percenage of symptom free patients gradually declines with age. At 30 years and 35 years about 80 to 90% were symptom free when ovaries were conserved, at 40 year it is 65% and at 45 years 50%. This figure declines to 40% at 46 to 50 years and to 20% above 50 years.. This is only the natural decline in ovarian function as the age advances. In addition there may be occasions where

the surg cal technic might have resulted in loss of ovarian blood supply and hence reduced ovarian function.

All the same, while there is a natural tendency for increased incidence of menopause with advancing age, the incidence of menopausal symptoms is always significantly more in the oophorectomised women as against the ovary conserved group for each age group analysed separately. Upto the age of 40 years; 10 to 35% of ovarian conservation group have menopausal symptoms, whereas the incidence is 50 to 80% in the bilateral oopherectomy group. In the 41 to 50 years bracket 50 to 60% in the former group and 91 to 95% in the latter group had experienced menopausal symptoms. Even in the post-menopausal age of beyond 50 years, there was a 13% greater incidence of menopausal symptoms in the oophorectomised women.

Another significant observation of this study is that unilateral ovarian conservation offers almost the same protection against menopausal problems as that of bilateral ovarian conservation.

That at any given age, including the post-menopausal age, ovarian conservation at hysterectomy as against bilateral ovarian removal offers a greater protection against development of menopausal symptoms, and that none of 523 subjects in whom either one or both ovaries were conserved at hysterectomy developed ovarian neoplasms, are our reasons to advocate that ovaries should not be removed at the time of hysterectomy unless the ovaries are diseased or the indication for hysterectomy is a malignant disorder.