COMPARITIVE STUDY OF MENOPAUSAL SYMPTOMS AFTER HYSTEROECTOMY WITH AND WITHOUT OopherECTOMY

A.Parimala¹, D.Sharithra²

1. Professor, Department of OBG, Saveetha Medical College , SIMATS, Kuthambaakam, Chennai, 600124, Tamil Nadu, India
2. Final MBBS, Saveetha Medical College, SIMATS, Kuthambaakam, Chennai, 600124, Tamil Nadu, India

ABSTRACT

The incidence, nature and time of appearance of different menopausal symptoms has been studied in a population of women after hysterectomy with and without oopherectomy A study of three hundred and eleven patients who have undergone hysterectomy in the department of Obstetrics and Gynaecology in Saveetha Medical College and Hospital in the year 2019 for benign conditions was conducted. Out of 311, group A with retained ovaries (107) and group B with bilateral salpingo-oopherectomy (204) were followed up for menopausal symptoms. Out of 311 patients, the percentage of hysterectomy with retained ovaries is 34% (Group A-107 patients) and hysterectomy with bilateral salpingo-oopherectomy is 66% (Group B-204 patients). The percentage of urinary symptoms in group A is 23 % (25 patients) and in group B is 35% (73 patients). The percentage of vasomotor symptoms in group A is 29%(31) and in group B is 64% (131) and the percentage of neurogenic symptoms in group A is 42%(45) and in group B is 52%(106).The percentage of genital symptoms in group A is 17%(18) and in group B is 36%(73).In loss of libido percentage in group A is 8%(9) and in group B is 29%(59).The percentage of endocrine symptoms in group A is 39%(42) and in group B is 52%(107).The most common symptom is the vasomotor symptom in the symptomatic group. There is no statistically significant difference in the time of appearance of symptoms in both the groups.

Keywords: Hysterectomy, oopherectomy, retained ovaries, menopausal symptoms

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INTRODUCTION

Hysterectomy or removal of the uterus is the major second most common surgical procedure performed in obstetrics and gynaecology department after caesarean section[¹]. The decision to preserve or remove ovaries during hysterectomy is made based on age of the patient, indication of surgery, past medical history, family history and patient’s wish[²]. Removal of the uterus with cervix and both tubes and ovaries is called Total hysterectomy with bilateral salpingo-oopherectomy. Bilateral salpingo-oopherectomy (BSO) results in reduced levels of oestrogen causing menopausal symptoms.

The common indications for hysterectomy are fibroids, abnormal uterine bleeding, adenomyosis, and pelvic organ prolapse. Ninety percent of hysterectomies are for benign gynaecological conditions[³].
Menopause is permanent cessation of menstruation and loss of fertility due to loss of ovarian follicles. It occurs naturally between age of 48 to 52 or by surgically (after BSO). The symptoms and complications of menopause varies from one person to other caused by rapid decline in circulating ovarian estrogens and androgens. The common symptoms are vasomotor symptoms like hot flushes, profuse night sweats, palpitation; urinary symptoms like stress incontinence, dysuria, frequent urinary tract infections; neurological symptoms like depression, insomnia, poor concentration; genital symptoms like dry vagina dyspareunia; loss of libido\textsuperscript{[4]}. The mainstay management of the menopausal symptoms are hormone replacement therapy, counselling, yoga, pelvic floor exercises\textsuperscript{[5]}.

In this report we study the incidence, nature and onset of menopausal symptoms in premenopausal hysterectomy with and without oopherectomy in Saveetha Medical College and Hospital within 1 year of surgery.

MATERIALS AND METHODS

Setting: This is a single centered study conducted in the Department of Obstetrics and Gynaecology in Saveetha Medical College and Hospital.

Population: The study was conducted on three hundred and eleven women who underwent hysterectomy either abdominally or vaginally or laparascopically for benign diseases. They were divided into two groups – one group (group A=107) consisting of women with retained ovaries and the other group (group B=204) consisting of women with ovaries removed (BSO).

Inclusion criteria:
- Premenopausal women
- Benign indication for surgery

Exclusion criteria:
- Women who have attained menopause before surgery
- Malignant indication for surgery

Methodology: Data of women who underwent hysterectomy alone and hysterectomy along with oopherectomy in the year 2019 was collected from medical records and were followed up and interviewed regarding menopausal symptoms under the headings urinary tract symptoms, vasomotor symptoms, neurological symptoms, genital symptoms, loss of libido, osteoporosis and endocrine symptoms and the data were analysed.

RESULTS

Out of 311 patients, the percentage of hysterectomy with retained ovaries is 34%(Group A-107 patients) and hysterectomy with bilateral salpingo-oopherectomy is 66%(Group B-204 patients) (figure 1). The percentage of urinary symptoms in group A is 23 % (25 patients) and in group B is 35% (73 patients). Among 98 patients with urinary symptoms 40% belongs to group A and 60% belongs to group B (figure 2). The p-value is 0.0251 which is less than 0.05 and hence significant relationship between removal of ovaries and urinary symptoms.

The association of urinary symptoms is more in patients with ovaries removed than patients with retained ovaries.

The percentage of vasomotor symptoms in group A is 29% (31) and in group B is 64% (131). Among 162 patients with vasomotor symptoms 31% belongs to group A and 69% belongs to group B (figure 3). The p-value is 0.00001 which is less than 0.05 and hence significant relationship between removal of ovaries and vasomotor symptoms. The association of vasomotor symptoms is more in patients with ovaries removed than patients with retained ovaries.

The percentage of neurogenic symptoms in group A is 42% (45) and in group B is 52% (106). Among 151 patients with neurogenic symptoms 45% belongs to group A and 55% belongs to group B (figure 4). The p-value is 0.9685 which is greater than 0.05 and hence not significant.

The percentage of genital symptoms in group A is 17% (18) and in group B is 36% (73). Among 91 patients with genital symptoms 32% belongs to group A and 68% belongs to group B (figure 5). The p-value is 0.0048 which is less than 0.05 and hence significant relationship between removal of ovaries and genital symptoms. The association of genital symptoms is more in patients with ovaries removed than patients with retained ovaries.

The percentage of loss of libido in group A is 8% (9) and in group B is 29% (59). Among 68 patients with loss of libido 22% belongs to group A and 78% belongs to group B (figure 6). The p-value is 0.00032 which is less than 0.05 and hence significant relationship between removal of ovaries and loss of libido. The association of loss of libido is more in patients with ovaries removed than patients with retained ovaries.

The percentage of endocrine symptoms in group A is 39% (42) and in group B is 52% (107). Among 149 patients 43% belongs to group A and 57% belongs to group B (figure 8). The p-value is 0.02686 which is less than 0.05 and hence significant relationship between removal of ovaries and endocrine symptoms. The association of endocrine symptoms is more in patients with ovaries removed than patients with retained ovaries.

<table>
<thead>
<tr>
<th>Surgery</th>
<th>Total patients</th>
<th>Urinary symptoms</th>
<th>Vasomotor symptoms</th>
<th>Neurogenic symptoms</th>
<th>Genital symptoms</th>
<th>Loss of libido</th>
<th>Endocrine symptoms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group A</td>
<td>107</td>
<td>25(23%)</td>
<td>31(29%)</td>
<td>45(42%)</td>
<td>18(17%)</td>
<td>9(8%)</td>
<td>42(39%)</td>
</tr>
<tr>
<td>Group B</td>
<td>204</td>
<td>73(35%)</td>
<td>131(64%)</td>
<td>106(52%)</td>
<td>73(36%)</td>
<td>59(29%)</td>
<td>107(52%)</td>
</tr>
<tr>
<td>Total</td>
<td>311</td>
<td>98</td>
<td>162</td>
<td>151</td>
<td>91</td>
<td>68</td>
<td>149</td>
</tr>
</tbody>
</table>

Give legend of the table!!!!!
DISCUSSION

Study conducted on Evaluation of women following Hysterectomy with and without conservation of ovaries by Ramprasad Dey et al, shows percentage of vasomotor symptoms, urinary symptoms, neurological symptoms in group as 40%, 25%, 20%, respectively and in group B as 50%, 25%, 25% and the most common symptom is vasomotor symptoms[1]. This study shows the percentage vasomotor symptoms, urinary symptoms, neurological symptoms in group A as 29%, 23%, 42%, respectively and in group B as 64%, 35%, 52%. In this study Vasomotor symptom is the most common symptom similar to the above study.

Study by Ron Collaris et al, on Prospective follow up of changes in menopausal complaints and hormone status after surgical menopause in Malaysian population states that fewer than 25% of women considered themselves symptomatic and their symptom ratings increased significantly only between 2 and 3 weeks of surgery[6]. In this study 28% of women were symptomatic and their symptoms appeared in first week of surgery in most of the patients.

Jan L Shifren et al, conducted a study on surgical menopause: effects on psychological well-being and sexuality and stated that there is improved psychological well-being and sexual function after hysterectomy for benign disease however women with depression or sexual problems preoperatively are at risk for worsening of mood and libido postoperatively[7]. Our study shows that there is statistical significance of more association of psychological symptoms in women with ovaries removed but loss of libido has statistical significance with ovary removal and has more association to it.

Study on Hysterectomy with and without oophorectomy and all-cause and cause-specific mortality by Karen M. Tuesley et al, states that women having surgery for benign indications, hysterectomy without oophorectomy done before 35 years of age and hysterectomy with bilateral salpingo-oophorectomy done before 45 years of age were associated with increase in all cause mortality however old age is not associated with poorer long term survival[8].

Another study on psychosexual health 5 years after hysterectomy by Klim McPherson et al, states that women reported having bothersome psychosexual function than women with less invasive procedures. The odds were particularly high amongst women with concurrent bilateral salpingo-oophorectomy, it was increased by 80% loss of libido and 69% vaginal dryness compared with transcervical endometrial resection[9]. In the present study
group A constitutes 22% and group B constitutes 78% of loss of libido and group A constitutes 32% and group B constitutes 68% of genital symptoms like dry vagina.

Study by Carolyn J.Gibson et al, on Mood symptoms after natural menopause and hysterectomy with and without bilateral oophorectomy among women in midlife states that women undergoing hysterectomy with and without oophorectomy do not experience more negative mood symptoms\textsuperscript{[12]}. The present study shows does not show a significant association of neurogenic symptoms with ovaries removal than retained ovaries.

Another study on A prospective study of 3 years of outcomes after hysterectomy with and without oophorectomy by Cynthia M.Farquhar et al, reported that women with retained ovaries(group1) have 21% and women with ovaries removed(group 2) have 43% of loss of fertility in 3 years of surgery\textsuperscript{[13]}. More than 90% of premenopausal women will have vasomotor symptoms following oophorectomy is stated in a study by effect of bilateral oophorectomy on women’s long term health by William H Parker et al,\textsuperscript{[14]} This study shows 64% of group 2 women with vasomotor symptoms.

Study on Diagnosis and treatment of atrophic vaginitis documents increased incidence of urogenital atrophy in surgically menopausal women than naturally menopausal women\textsuperscript{[15]}.

The study on oophorectomy in premenopausal women by Vanessa Teplin et al, states that women who underwent BSO have less improvement and low quality of life in first six months than women with retained ovaries but sexual functioning, hot flushes, urinary incontinence , pelvic pain were similar in both groups at the end of 2 years\textsuperscript{[16]}.

**CONCLUSION**

The most common symptom is the vasomotor symptom in the symptomatic group. There is no statistically significant difference in the time of appearance of symptoms in both the groups. There is a significant higher association of patients with removal of ovaries and urinary, vasomotor, genital, endocrine symptoms and loss of libido than patients with conserved ovaries but no significant association of patients with removal of ovaries than patients with conserved ovaries in neurological symptoms .

Bilateral salphingooophorectomy with hysterectomy is usually done to prevent the ovarian cancer in preserved ovaries. But the incidence of appearance of menopausal symptoms are high in surgical menopause than that of ovarian cancer and it affects the patient to varied levels. Most of the women from rural area live with these symptoms without attempting to go to hospital for relief. But the risk of developing cancer in these women with ovarian preservation cannot be ruled out as they don’t come for regular follow up. So preservation of ovaries to be done only after weighing the risk and the benefits.
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Conflict of interest: None declared

Ethical approval: The study was approved by the Institutional Ethics Committee.

REFERENCES


