



C-Gyn 25

Prophylactic oophorectomy at the time of hysterectomy for benign gynaecological disease

The removal of healthy ovaries and fallopian tubes (bilateral salpingo-oophorectomy or BSO) at the time of hysterectomy for benign disease is commonly performed for the perceived benefit of preventing long-term morbidity and mortality related to retention of the ovaries. The commonest indication for prophylactic BSO at the time of hysterectomy, especially in postmenopausal women, is the reduction in risk of developing ovarian cancer.

Removal of healthy ovaries does not add significantly to the operating time or immediate surgical complications of hysterectomy, but may have significant implications for the short and long-term health of the woman. Lack of evidence from high quality clinical trials limits the ability of surgeons and patients to make an informed decision about the relative merits of ovarian removal or conservation in women who are not at increased risk of ovarian cancer.

The postmenopausal ovaries are physiologically active and continue to produce oestradiol (at lower levels) and testosterone. A recent modelling study has concluded that “women younger than 65 years of age clearly benefit from ovarian conservation, and at no age is there a clear benefit from prophylactic oophorectomy” (Parker 2007).

The American College of Obstetricians and Gynecologists (ACOG 2008) has recently changed its recommendation regarding retention or removal of normal ovaries at the time of hysterectomy from advice to consider 45 years as “cut off” for BSO to advice that “strong consideration should be made for retaining normal ovaries in premenopausal women who are not at increased genetic risk of ovarian cancer”

The decision for BSO must consider the individual consequences for each woman with regard to her baseline risk for developing breast and ovarian cancers, coronary artery disease, osteoporosis, non-compliance and/or poor clinical response to HRT.

Common reasons given for BSO at time of hysterectomy for benign disease

1. Risk reduction of ovarian cancer in women *without* known risk factors
2. Risk reduction of ovarian cancer in women *with* known significant risk factors such as strong family history of breast and ovarian cancer or carrier of a gene mutation (BRCA1/2 or HNPCC)
3. To avoid subsequent surgical intervention due to retained ovaries related to pelvic inflammatory disease, endometriosis, chronic pelvic pain or ‘entrapment syndrome’
4. Reduction of symptoms associated with advanced endometriosis not responsive to other medical or surgical therapies
5. Endocrine treatment of breast cancer in consultation with treating physician

Potential risks of BSO at time of hysterectomy for benign disease

1. Increased mortality due to Coronary Heart Disease (CHD)
2. Increased morbidity and mortality due to osteoporosis related fracture.

3. Increased risk of cognitive dysfunction including dementia
4. Increased risk of depressive and anxiety symptoms.
5. In premenopausal women:
 - a. More severe and prolonged vasomotor symptoms than those seen following natural menopause.
 - b. Reduction in libido and sexual dysfunction

With the exception of osteoporosis related fracture, it is unclear whether the incidence and severity of the above conditions can be ameliorated by oestrogen therapy.

Recommendations

- Women who are anxious in regard to their personal risk of ovarian cancer may wish to proceed to BSO despite potential short and long term risks, but this should only occur after appropriate counselling.
- Caution should be exercised in performing BSO in women younger than 65 years of age.
- A discussion of the benefits and harms of concurrent removal of ovaries needs to take place before hysterectomy for benign gynaecological conditions.
- Women should be allowed time to consider this information before consenting to the proposed surgical procedure.
- The factors that will influence the decision making are likely to be:
 - The woman's risk (real or perceived) of ovarian cancer
 - Indications for hysterectomy and the planned surgical approach
 - Personal risk factors for CHD, osteoporosis and depression.
 - Absolute and relative personal contraindications to oestrogen therapy
- Where appropriate consider a multidisciplinary approach involving menopause specialists, clinical geneticists and clinical psychologists
- For women who choose BSO, long term follow up should be planned in consultation with their health providers for preservation of their physical, emotional and psychological wellbeing.

Links to other related College Statements

(if any)

References

1. Atsma F, Bartelink, M.L., Grobbee, D.E., van der Schouw, Y.T.:(2006) Postmenopausal status and early menopause as independent risk factors for cardiovascular disease: a meta-analysis. *Menopause*;Mar-Apr;13(2):265-279.
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3. Lobo RA:(2007) Surgical menopause and cardiovascular risks. *Menopause*;May-Jun:562-566.
4. Parker WH, Shoupe, D., Broder, M.S., Liu, Z., Farquhar, C., Berek, J.S.:(2007) Elective oophorectomy in the gynecological patient: when is it desirable? *Curr Opin Obstet Gynecol.*;19:350-354.
5. Vearncombe KJ, Pachana, N.A.:(2009) Is cognitive functioning detrimentally affected after early, induced menopause? *Menopause.*;16:188-198.

6. ACOG Practice Bulletin No. 89: Elective and Risk-Reducing Salpingo-oophorectomy: Obstetrics & Gynecology. 111(1):231, January 2008.
7. Hickey M, Ambekar M, Hammond I.: (2008) What is the basis for removal or retention of the ovaries at the time of hysterectomy for benign disease?; *Invited review and submitted to Human Reproduction Update.*

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