AUSTRALASIAN MENOPAUSE SOCIETY
EMPOWERING MENOPAUSAL WOMEN

Information Sheet

Surgical Menopause

Key points

- Removal of both ovaries (bilateral oophorectomy) before a woman has gone through her natural menopause is called "surgical menopause".
- Bilateral oophorectomy may be done at the time of hysterectomy for benign disease or gynaecological cancers, or as part of risk reduction treatment in women with an inherited increased chance of developing ovarian cancer.
- Negative effects include a sudden and severe onset of menopausal symptoms, increased risk of osteoporosis and cardiovascular disease, sexual dysfunction and loss of fertility.
- MHT/HRT is advised for all women who undergo a surgical menopause under the age of 45, provided they do not have contraindications to MHT/HRT (e.g. personal history of breast cancer.)

What is surgical menopause?

Menopause means the final menstrual period. The average age of menopause is around 51 years, but most women will start to notice menopausal symptoms from around 47 years. This may be noticed as the onset of hot flushes, night sweats or vaginal dryness or a change in menstrual periods to more infrequent and sometimes heavier menstrual bleeding (1). Removal of both ovaries (bilateral oophorectomy) before the normal menopause is called "surgical menopause".

Indications for surgical menopause.

Surgical menopause is commonly performed at the time of hysterectomy for benign (non cancerous) disease, most commonly for heavy menstrual bleeding or fibroids (2). Another common reason to remove normal ovaries at the time of hysterectomy is to reduce the risk of ovarian cancer. This has been shown to be beneficial in women with an inherited increased chance of developing ovarian cancer (gene mutations such as BRCA1 or BRCA2 or HNPCC) (3), and for some women with very strong family histories of ovarian cancer, but is not recommended for other women as the disadvantages of removing

normal ovaries at the time of hysterectomy are likely to be greater than their very small risk of ovarian cancer (4). Very little is known about the impact of removing normal ovaries from postmenopausal women.

Some premenopausal women will elect to have their ovaries removed for other indications, such as endometriosis or chronic pelvic pain. Depending on the circumstances, removal of the ovaries may improve pain, but it is not always effective. Some doctors may suggest a trial of a drug to bring on a short term "chemical menopause" before surgery to try and mimic the effects of surgical menopause. However, it is not currently possible to predict how surgical menopause will affect individual women.

There are other reasons why the ovaries are sometimes removed from younger women such as recurrent ovarian cysts and premenstrual syndrome, but the evidence to support a benefit for this is weak and normal ovaries should not be removed from younger women for these indications.

Although surgical menopause is common, there have been remarkably few studies which have followed women before and after oophorectomy to try and understand how surgery affects their menopausal symptoms and short and long term health.

Potential positive effects of surgical menopause

- Reduced risk of ovarian cancer in women who are known to be at high inherited risk. Having this operation also usually reduces anxiety about developing ovarian cancer. In some high risk women, surgical menopause may also reduce their risk of breast cancer.
- Reduced pelvic pain for women with endometriosis or dense adhesions around the ovary.

Potential negative effects of surgical menopause

- Sudden and more severe onset of menopausal symptoms: in particular; hot flushes, night sweats and vaginal dryness
- Loss of bone density and increased risk of osteoporosis and fracture
- Impaired sexual function due to reduced desire and to discomfort from vaginal dryness
- Reduced sex drive (libido) associated with loss of ovarian testosterone production
- Loss of fertility
- Increased risk of cardiovascular (heart) disease

Surgical menopause may have other adverse effects on health including affecting mood (increased depression), cognition (thinking), dementia and potential increased risk of

Parkinson's disease but the evidence for these is not well established. Large population based studies have reached different conclusions about whether surgical menopause impacts on cardiovascular, cancer or all cause mortality(5).

Use of Menopausal Hormone Therapy (MHT), also known as Hormone Replacement Therapy (HRT) may reduce these risks, but again there is insufficient evidence. The proven value of MHT after surgical menopause is in managing vasomotor symptoms and maintaining bone density.

Management of surgical menopause

Ideally, a menopause specialist should review younger women prior to surgical menopause to explain the potential consequences of surgery and to make a plan for symptom management and long-term health.

Current international guidelines (6) advise use of MHT for all women who undergo menopause under the age of 45 years provided that they do not have other contraindications to MHT (6). Treatment should continue until the average age of menopause (51 years) and then be reviewed. Those with a personal history of breast cancer should avoid both MHT and tibolone, as they have been associated with an increased risk of breast cancer recurrence (7). For high risk (BRCA1 and BRCA2) women without a personal history of breast cancer, observational data suggest that MHT appears to be safe (8). Women should be aware that discontinuation of MHT will be associated with a recurrence of hot flushes and night sweats in around 50% of cases.

Use of MHT will resolve hot flushes and sweats in 80-90% of women, although there is evidence that hot flushes and night sweats as well as vaginal dryness may persist despite MHT use in younger women (9). There are no specific guidelines on the type of MHT to use but oestrogen only MHT is generally prescribed for those women who have had a hysterectomy (removal of the uterus). Women who retain their uterus should use an oestrogen and progestogen combination preparation (refer to AMS information sheets - Combined Hormone Replacement Therapy and Oestrogen Only Therapy)

For women who have had both hysterectomy and bilateral oophorectomy (both ovaries removed) for endometriosis, taking MHT has the potential to reactivate residual disease. This has been reported with all MHT preparations including tibolone. There is no consensus on MHT regimens in this population, but it seems reasonable to use low dose oestrogen only preparations in younger women and to discontinue oestrogen if symptoms of endometriosis recur and consider using a non-hormonal agent to treat hot flushes. In some circumstances, particularly if endometriosis has involved the bowel, progestogen may be added to the oestrogen.

In those without contraindications to MHT, suggest starting treatment within a week following oophorectomy.

Offer patients a follow up within 6 weeks to ensure treatment is adequate. Consider adding vaginal oestrogens to systemic MHT for vaginal dryness and ensure that issues regarding sexual function are addressed.

Consider supplemental testosterone in younger women with reduced libido following surgical menopause (10).

Ongoing management of women after surgical menopause

- Discuss evidence based lifestyle strategies for maintaining bone and cardiovascular health. These may include, diet, exercise, smoking cessation and adequate calcium and Vitamin D levels.
- Ensure that vasomotor symptoms and vaginal dryness are effectively managed. Younger women may require higher doses of oestrogen to manage their symptoms, but there is very little evidence to support this and low doses should be used in the first instance to minimise exposure.
- Women who are postmenopausal below the age of 45 years are entitled to Medicare Bone Density (DXA) scans. These should be performed at 2 yearly intervals. MHT (unless contraindicated) is the best management option for these women with low bone density.
- Because of the increased risk of cardiovascular disease associated with early menopause, and in particular with surgical menopause, assessment of cardiovascular risk factors (including blood pressure, serum fasting glucose and fasting lipid levels) should be considered with further management as appropriate. It remains unclear whether MHT protects against cardiovascular disease after surgical menopause.
- Consider psychological support in view of the potential increased risk of depression in this population.

Further Information

- Cancer Australia http://canceraustralia.gov.au/affected-cancer/cancer-types/breast-cancer
- The International Premature Ovarian Failure Association (IPOFA) website: http://www.ipofa.org
- The Daisy Network Premature Menopause Support Group: http://www.daisynetwork.org.uk
- New Zealand Early Menopause Group: http://www.earlymenopause.org.nz

References

1. Harlow SD, Gass M, Hall JE, Lobo R, Maki P, Rebar RW, Sherman S, Sluss PM, de Villiers TJ, for the STRAW 10 Collaborative Group. Executive summary of the Stages of Reproductive Aging Workshop + 10: addressing the unfinished agenda of staging reproductive aging. Menopause. 2012;19(4):387-95.
2. Hickey M, Ambekar M, Hammond I. Should the ovaries be removed or retained at the time of hysterectomy for benign disease? Human Reprod Update. 2009;16(2):131-41.
3. Rebbeck TR, Kauff ND, Domchek SM. Meta-analysis of risk reduction estimates associated with risk-reducing salpingo-ooprhorectomy in BRCA1 or BRCA2 mutation carriers. JNCI. 2009;101(2):80-7
4. Parker WH, Shoupe D, Broder MS, Liu Z, Farquhar C, Berek JS. Elective oophorectomy in the gynecological patient: when is it desirable? Curr Opin Obstet Gynecol. 2007;19(4):350-4.
5. Duan L, Xu X, Koebnick C, Lacey JV Jr, Sullivan-Halley J, Templeman C, Marshall SF, Neuhausen SL, Ursin G, Bernstein L, Henderson KD. Bilateral oophorectomy is not associated with increased mortality: the California Teachers Study. Fertil Steril. 2012;97(1):111-7.
6. Hickey M, Davison S, Elliot J. Hormone Replacement Therapy. BMJ. 2012; Feb 16;344:e763.
7. Hickey M, Davis SR, Sturdee DW. Treatment of menopausal symptoms: what shall we do now? Lancet. 2005;366(9483):409-21.
8. Rebbeck TR, Friebel T, Wagner T, Lynch HT, Garber JE, Daly MB, Isaacs C, Olopade OI, Neuhausen SL, van 't Veer L, Eeles R, Evans DG, Tomlinson G, Matloff E, Narod SA, Eisen A, Domchek S, Armstrong K, Weber BL. PROSE Study Group. Effect of short-term hormone replacement therapy on breast cancer risk reduction after bilateral prophylactic oophorectomy in BRCA1 and BRCA2 mutation carriers: the PROSE Study Group. J Clin Oncol. 2005;23(31):7804-10.
9. Finch A, Metcalfe KA, Chiang JK, Elit L, McLaughlin J, Springate C, Demsky R, Murphy J, Rosen B, Narod SA. The impact of prophylactic salpingo-oophorectomy on menopausal symptoms and sexual function in women who carry a BRCA mutation. Gynecol Oncol. 2011;121(1):163-8.
10. Wierman ME, Basson R, Davis SR, Khosla S, Miller K, Rosner W, Santoro N. Androgen therapy in women: an Endocrine Society Clinical Practice guideline. J Clin Endocrinol Metab. 2006;91(10):3697-710.

Last updated January 2017