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GYNECOLOGY • UROLOGY • WOMEN'S WELLNESS

Breast Cancer, BRAC Genetic Mutations and the Role of Hormone Therapy

What are the Risks?

Hormone Therapy in Breast Cancer Survivors

When a post-menopausal woman on ERT or HRT is diagnosed with breast cancer she is routinely advised to stop her hormones, usually with no consideration or discussion of the impact from quitting. When a breast cancer survivor enters menopause, or if she is already post-menopausal, she will usually not be offered the option of hormone replacement. The reason is a long-standing concern among the medical profession that administering estrogen in any form might stimulate a recurrence of her disease. However, a double-blinded clinical trial has never been conducted to determine if, in fact, there is any increased risk of recurrence of disease in women who elect to initiate or restart ERT or HRT.

In spite of the absence of a prospective double-blind study as to the risk of estrogen use in women with a personal history of breast cancer, there are clinical studies and observations, which provide support for the consideration of estrogen replacement in appropriately selected patients:

- When breast cancer is detected during a pregnancy, termination of the pregnancy is no longer recommended. Exposure to high levels of female hormones while pregnant has no adverse impact on either the course of the disease or the incidence of a future recurrence.
- Previously treated breast cancer patients who become pregnant do well.
- Pre-menopausal patients who are diagnosed with breast cancer do not have their ovaries (the source of estrogen) removed. There is an exception, if recurrent disease occurs and the tumor is estrogen BRAC1
- There is no evidence of an increased risk of breast cancer in women who have used oral contraceptive pills or estrogen alone (without progesterone) after menopause.
- Current studies have established that women who are using estrogen replacement have a 23% **reductio**n in the incidence of breast cancer, a 63% **reduction** in deaths from breast cancer and a 60% **reduction** in all-cause mortality.

Hormone Therapy in *Previvors* (BRAC1 or BRAC2 Women with NO Personal History of Breast or Ovarian Cancer

- BRAC1 carriers risk of cancer by age of 70:
  - Breast - 60-65%
  - Ovarian – 39-59%
- BRAC2 carriers risk of cancer by age of 70:
  - Breast – 45-55%
  - Ovarian – 11-17%
- Removal of ovaries and fallopian tubes (BSO) before menopause reduces ovarian, fallopian tube and peritoneal cancer by up to 80% and breast cancer by 45%
- Previvors should complete childbearing AND have a BSO by age of 35-40 years
- Women who undergo a BSO and do NOT take replacement hormone therapy have an increased risk of cognitive impairment or dementia, more severe menopausal symptoms, osteoporosis and cardiovascular disease.
- Risk of breast cancer in Previvors who undergo a BSO have a reduced risk of up to 60% and the use of hormone therapy does not increase breast cancer risk in BRAC1 or BRAC2 mutation carriers with intact breasts.

- Recommendation for young Previvors with or without intact breasts: Carriers should not defer or avoid risk-reducing BSO because of concerns that subsequent use of systemic hormone therapy will increase their breast cancer risk.

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