

ALTERNATIVE HORMONAL THERAPY FOR BREAST CANCER USE

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A new hormonal agent, Raloxifen, has been investigated for treatment of women with breast cancer. Recently an article evaluating 7705 women described the risks of breast cancer development while using Raloxifen. Raloxifen is a hormonal agent that modifies the estrogen receptor. The estrogen receptor is present on breast cells. It is felt that Raloxifen binds the estrogen receptors and blocks estrogen induced genetic transcription in the breast as well as the endometrium or lining of the uterus.

By blocking estrogen stimulation of breast cells means that a particular agent can alter the hormonal message delivered to cells - perhaps even inhibiting the creation of new breast cancers. It is a different mechanism of action than Tamoxifen a hormonal drug commonly used and on the market today for selected patients with breast cancer.

The primary purpose of the Raloxifen study was to determine whether three years of Raloxifen decreases fractures in post-menopausal woman who have osteoporosis. Patients were also evaluated for the development of breast cancer as a secondary point. This agent has stimulated a great deal of interest in women seeking to decrease side effects from hormonal use for breast cancer care.

Seventy seven hundred and five women who were two years post-menopausal and not older than 80 years who had osteoporosis were included in the study.

Participants in the study also received calcium and Cholecalciferol in an effort to reduce bone fractures. They were randomly allocated to receive two placebo pills, one placebo and one Raloxifen pill or two Raloxifen pills containing 60mg each.

Mammograms were optional after the first year but mandatory after two years and three years of treatment. Transvaginal ultrasound was also required in all participants if a uterus was present. The purpose was to measure any adverse effects on the lining of the uterus. A competing agent, Tamoxifen, is known to have a modest but adverse results in some patients. Endometrial biopsy was suggested for women who had vaginal bleeding or thickening of the endometrium.

Records were evaluated for development of blood clots as well. That too is an area of concern for those taking hormonal therapy since deep venous thrombosis (blood clots in veins of the legs) does occasionally occur.

Twenty five hundred and seventy six women had placebo only while 5129 had Raloxifen either as one pill or two pills a day. The mean age was 66.5 years with 96% of the women being white. 12.3% had a family history of breast cancer.

Within 40 months of follow-up breast cancers occurred in 54 out of 7,705 women. Symptoms such as hot flashes, flu-like syndrome, fluid within the endometrial cavity, leg edema and cramps were more commonly seen in those who were taking Raloxifen than those getting the placebo only.

Thirty three women stopped Raloxifen treatment compared to two women stopping placebo due to hot flashes. At 40 months there was a higher rate of deep venous thrombosis in women taking Raloxifen. It occurred in 38 women with 17% having blood clots travelling to the lung compared to the placebo group where five women had blood clots and three had lung emboli or involvement. There was no difference of blood clot development based upon the dose of Raloxifen taken - either one or two pills a day. Thus, there was no dose effect.

More women had worsening diabetes in the Raloxifen group compared to the placebo group. High blood pressure, elevated cholesterol, blood in the urine and slow heart rate was seen less frequently in women taking Raloxifen than in the placebo group.

Endometrial cancer occurred in four women given placebo compared to six in the Raloxifen group. The use of Raloxifen decreased the risk of new invasive breast cancer by 76% during the 40 months of osteoporosis treatment study. That is a major point to oncologists and women wondering what can be done to prevent breast cancer development!

Specifically there was a 90% decrease in estrogen receptor positive breast cancer. Yet there was no decrease in estrogen receptor negative breast cancer. This compared to Tamoxifen where the decrease in invasive breast carcinoma was 49% after 55 months and estrogen receptor breast cancer decreased by 69%.

The authors noted that, "although it appears that Raloxifen reduces the risk of breast cancer more than Tamoxifen does, the results of these two studies cannot be directly compared." Why?

Women in the Tamoxifen study were in a higher risk for development of breast cancer. That was the primary purpose of this study, not a secondary purpose. It was found that Raloxifen was generally well tolerated and does not cause vaginal bleeding or breast pain which often is a prominent feature of other post-menopausal hormonal use.

It was also noted that, "Tamoxifen and Raloxifen may be useful preventative therapy for women who have an increased risk of estrogen receptor positive breast cancer and vertebral fractures." Both agents can increase hot flashes. Some thought possibly it is best used by women no longer having hot flashes after menopause.

These are ongoing studies will determine the best agent to serve the purpose of each individual woman based upon her situation, needs and desires. An oncologist can present the facts - stating all risks, benefits and alternatives, then each one will decide the best treatment.