Review of the Effects of Raloxifene on Mammographic Breast Density

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ABSTRACT

Major risk factors for breast cancer include female gender, age, and family history. Breast density is another strong risk factor for breast cancer. Recently, several published studies have shown a strong positive association between dense breast tissue in mammograms and increased risk of breast cancer. Increased breast density has the potential to make interpretation of mammograms more difficult, with dense breasts having a masking effect. Mammographic density is a consistent marker of susceptibility to breast cancer, but is not routinely included in risk assessment tools.

Three breast cancer risk assessment models incorporate breast density: 1) BI-RADS, adjusted for age and race or ethnic group; 2) the Breast Cancer Surveillance Consortium risk model which incorporates BI-RADS; 3) an updated Gail model that includes a semi-quantitative measure of breast density. Unlike other breast cancer risk factors, breast density may be influenced by factors such as medication. Raloxifene 60 mg/day (RLX) is approved for prevention and treatment of postmenopausal osteoporosis and for reduction in risk of invasive breast cancer in postmenopausal women with osteoporosis and in postmenopausal women at high risk for invasive breast cancer.

This review looks at seven small clinical studies, which studied the effect of RLX on breast density using different methods; the majority of these studies enrolled women with lower breast density. While these clinical studies found that RLX did not significantly affect mammographic breast density, no clinical recommendations can be presently made, as the biological mechanisms between breast density and breast cancer risk are still unknown.

Category II – Clinical Care, Treatments and Processing
G. Nursing
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