

## Rates of Distant Stage Breast Cancer in Young Women Increasing

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A month or so ago a local TV news anchor who is active in the breast cancer survivor circuit here in the San Joaquin Valley called me to inquire about the “alarming increase in breast cancer in young women”. She was doing a piece on a young woman she had recently interviewed who was diagnosed while still in her early 30’s. I responded that I was not aware of a dramatic increase in breast cancer incidence in young women but I would check the California Cancer Registry (CCR) data for recent trends. After we agreed that “young women” meant those women less than 40 years of age diagnosed with breast cancer, I began an examination of the CCR data for the years 1988-2010. Indeed breast cancer in this age category remains relatively infrequent, with an age adjusted incidence rate of about 12/100,000 per year. Only about 6% of all breast cancers are diagnosed at such a young age. In addition, between years 1988 and 2010, the incidence rate had declined somewhat in this age group, with a 0.3 % decrease each year.

Nevertheless, when checking recent epidemiologic literature, I noted an article in the Journal of the American Medical Association addressing nation-wide trends in breast cancer. (Johnson RH, Chien FL and Bleyer A. Incidence of Breast Cancer with Distant Involvement among Women in the United States, 1976-2009. JAMA Feb. 27. 2013. Vol 309 (8), 880-805.). This article, using the national Surveillance, Epidemiology and End Results (SEER) data, found a significant increase in breast cancers in women 25-39 years of age, with a distant stage cancer at diagnosis. Indeed, in this age group, between 1976 and 2009, distant stage disease had increased with an annual percent change of 2.07 %, which was statistically significant.

Intrigued by the report, I decided to evaluate the occurrence of breast cancer in young women in California, 1988-2010 stratified by stage at diagnosis. Although the trend of distant stage diagnosis in the 1988-2010 period among women greater than age 40 years has not changed overall, (see Figure 1) among women less than 40 years of age at

diagnosis, the incidence has increased 36% during this time period, with an annual percent change of 2.4% which is statistically significant (See Figure 2).

The reasons for this increase remain unclear although stage migration and increased diagnostic sensitivity and scrutiny may be partly the reason. Nevertheless, the increase is disturbing in that young age itself is an adverse prognostic factor for breast cancer and the most recent national 5 year survival for distant disease in 25 to 39 year-old women is only 31%. Despite its rarity, this disturbing increase in distant stage breast cancer at diagnosis warrants continued surveillance to determine if this trend is continuing.



