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Advanced Stage at Presentation in Breast Cancer Patients Presenting to Surgery in a Rural, Resource Limited State

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INTRODUCTION

Breast cancer survival rates in the United States have increased in part due to mammographic screening and early detection initiatives. New Mexico ranks 50th for women over 40 obtaining screening mammography, last estimated in 2016 at only 63% compared with 72% estimated nationally.[1,2] In our rural, resource limited state, patients often lack access to screening mammography and many do not seek care until a palpable abnormality is discovered. Prior studies have shown increasing size of tumor is associated with decreased long-term survival.[3,4] The purpose of this study was to determine whether breast cancer patients present to our surgery clinic at higher stages and with larger tumors than those expected by national averages.

METHODS

We performed a retrospective chart review of all breast cancer patients in our tumor registry from 2012 to 2016 for our hospital system, the largest provider of healthcare services in our state. Approximately 500 new breast cancers are diagnosed and treated annually at our institution.

RESULTS

2438 new cancers were identified. Of those, 2388 had race, ethnicity, pathologic and clinical staging available for assessment. 64% identified as white non-Hispanic, 33% Hispanic, and 3% were non-white non-Hispanic. American Indian as the third most common ethnicity, followed by non-Hispanic Black and Asian. Hispanic patients were more likely to present with early cancers (stage 0 or 1, 66%) compared with 35% at stage 2, 3, or 4. 63% of non-Hispanic white patients presented at stage 0 or 1, 32% at stage 2, 3, or 4.

Of our cohort, 28% were from a rural area (defined as a population of less than 50,000 inhabitants). 9% were lobular cancers, 15% Her-2 amplified, and 9.5% triple negative, of those with receptors available.

Only 6% of American Indian patients presented with DCIS, 13% of Hispanics, 15% in white non-Hispanics, and 18% of Black patients. 6% of patients died within five years or less from time of diagnosis, most of these patients (75%) were not stage 4 when initially diagnosed. An additional 2% had locoregional or distant recurrence documented between 2012 and 2016. 48% of patients diagnosed with stage 4 disease died from their disease during this time period.

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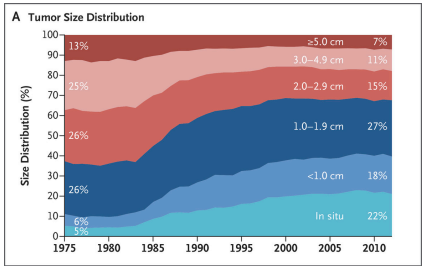
CONCLUSIONS

Breast cancer patients in our hospital system present at higher stage of disease than the national average. The average non-invasive cancer rate in the U.S. is 22%, but ours is much lower, particularly in ethnic minorities, likely due to fewer women being screened. We hope to promote increased screening and awareness initiatives by partnering with our radiology colleagues to provide better access throughout our poor, rural state to lower the stage at breast cancer presentation. We hope this will, in combination with better targeted medical treatment regimens, improve outcomes and survival rates for our patients.



Breast Cancer Tumor Size among Women 40 Years of Age or Older in the US, 1975-2012.
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