One-View Versus Two-View Tomosynthesis: A Comparison of Breast Cancer Visibility in the Mediolateral Oblique and Craniocaudal Views

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Presented at ARRS 2013, 177, SS 27 Breast Imaging

OBJECTIVE

To evaluate the added benefit in acquiring both tomosynthesis views (craniocaudal and mediolateral oblique) rather than a single view in visualizing breast cancer.

MATERIALS AND METHODS

106 patients who received both 2D mammography and tomosynthesis in both the views (mediolateral oblique and craniocaudal) in one year in both screening and diagnostic setting were included in this study. The results of 115 cancers in these patients were recorded and tabulated. Seven radiologists reviewed these cancers and their visibility in the two views was rated using the following categories:

- · Seen only on mediolateral oblique
- · Seen better on mediolateral oblique
- · Seen equally well on mediolateral oblique and craniocaudal
- Seen better on craniocaudal
- · Seen only on craniocaudal

For each cancer, breast density, mammographic finding, clinical presentation, and cancer histology were recorded.

RESULTS

Following are the results of the cancers evaluated in the study:

- 62 (53.9%) were equally well seen on both views
- 45 (39.1%) were better seen on one view
 - o 34 [29.6%] better on craniocaudal
 - 11 [9.6%], better on mediolateral oblique
- 8 (7.0%) were only seen on one view
 - o 6 [5.2%] only on craniocaudal
 - o 2 [1.7%] only on mediolateral oblique

A significantly larger number of cancers (35%) were either better or only seen in the craniocaudal view compared to the mediolateral oblique view (11%).

CONCLUSION

The study results demonstrated that obtaining both views is necessary to ensure that a cancer will be optimally visualized and derive the greatest potential benefit from tomosynthesis.



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