

## Long Term Mammographic Follow up of the Gelatin Pledget/Metallic Marker Combination

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Steve H. Parker, M.D., Teresa I. Kaske, M.D., Mark A. Dennis, M.D., Judy L. Chavez, R.T.(R) (M) and Joan Camp, R.N.  
Sally Jobe Breast Centre, Denver CO

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**PURPOSE:** To determine the stability of position of the new gelatin pledget/metallic marker combination and whether or not it causes a mammographic pseudo-lesion over time.

**METHODS AND MATERIALS:** The marker consists of seven, catheter delivered air-impregnated gelatin pledgets with the center pledget containing a mammographically visible metallic marker. These markers were placed following 11 gauge directional vacuum assisted biopsy (DVAB). 102 of the markers were followed mammographically for a minimum of 6 months (median 15 months). The mammographic location of the marker on the follow up mammogram was compared to the marker location on the immediate post-biopsy mammogram as well as to the original mammographic location of the breast lesion. The difference between the two locations in each instance was measure and recorded. The follow up mammogram was also evaluated for the presence of any mammographic pseudo-lesion at the site of the marker.

**RESULTS:** The marker demonstrated apparent displacement of 4mm (range 0-16mm) compared with the immediate post-biopsy marker location. Potential clinically meaningful interval displacement (>24mm) was not observed. Compared with the original location of the lesion, the marker was noted to be further from the lesion in 32% of cases and closer to the lesion in 6% of the cases. The total of the original deployment error measurement and the interval displacement measurement exceeded 24mm in 3% of the cases compared with 7% clinically meaningful deployment error reported for the standard, conventional clip marker. No mammographic pseudo-lesion was observed associated with the new marker in any of the cases.

**CONCLUSION:** The new gelatin pledget/metallic marker appears to be sufficiently stable in position over time to allow reasonable assessment of the location of a previous benign Mammotome biopsy and does not create any mammographic pseudo-lesion.

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