

Use of Real Time Specimen Radiography to Evaluate the Number of Stereotactic Core Biopsy Specimens Containing Calcifications Required for Diagnosis

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Study Goal

- Quality assurance initiative to determine the minimum number of calcification-containing stereotactic biopsy specimens sufficient for pathologic diagnosis and immunohistochemistry (IHC) in cases of malignancy.

Study Population

- 129 individual specimens with calcifications from 126 patients, retrieved with the Brevera stereotactic biopsy system with real-time specimen imaging.
- A minimum of six core specimens were taken from each calcified target and reviewed in order of retrieval.

Key Outcome Measures

Specimens containing calcifications were reported independently identifying which specimens had sufficient calcifications for diagnosis.

Key Findings

Average of 8 specimens were taken for each calcified target.

43% of initial core specimens contained calcifications.

Diagnosis was made from the:

- first calcified specimen in 74% of cases
- first two calcified specimen in 92% of cases
- first three calcified specimen in 100% of cases

In cases of malignancy, specimens containing calcifications were sufficient for diagnosis and IHC in:

- first calcified specimen in 73% of cases
- first two calcified specimen in 94% of cases
- first three calcified specimen in 100% of cases

Conclusion

Three calcified cores verified on real-time specimen imaging were sufficient to make a diagnosis and obtain IHC need nearly all cases.

