

Sonographic Evaluation of Breast Masses: A Management Alternative

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The lead article by Dr. Harvey Knoernschild, appearing in the second quarter issue of *CAPSules* focused on proper documentation of abnormal breast findings in the patient record, and the danger of delayed referral of patients with breast masses to the appropriate specialists. The article included a flow chart, entitled "Palpable Breast Lump, with Non-suspicious Mammograms." The flow chart suggested fine needle aspiration of masses that "feel cystic." Followed by re-exam in three to six weeks if "clear fluid," or by biopsy if "bloody fluid."

Rather than attempting to aspirate fluid from a cystic-feeling mass, consider the alternative of sonography. The Radiology literature^{1 2 3} recommends high resolution (i.e., 7 MgHz, or higher) focused ultrasound, following nonrevealing mammography, to evaluate palpable breast masses. In our experience, unguided, fine needle aspiration of breast masses is "hit and miss," because of scanty tissue, inability to accurately position the needle point, and difficult pathological interpretation.

In our own hospital in Lompoc, we have a dedicated high-resolution breast ultrasound unit adjacent to the Mammography Department, used for workup of palpable and nonpalpable breast masses. Where a percutaneous biopsy is indicated, we use a 14 gauge or larger core biopsy needle, with mammographic (stereotactic) or ultrasound guidance. This procedure avoids the risk that the fine needle aspiration may miss the mark, resulting in a false negative (nondiagnostic) aspiration, and any resulting delay in diagnosis.

Even aspiration of a "cyst" felt by palpation can be problematic. We have seen cases where a malignant tumor rested adjacent to a cyst. Further, physical examination and palpation, leading to "feels cystic" or "feels solid" conclusions, are inherently subjective and inexact. We recommend the use of high resolution focused ultrasound in cases of a palpable mass with non-suspicious mammogram to properly evaluate a lump.

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- 1 Bassett LW. Breast Sonography. *American Journal of Roentgenology (AJR)*. March 1991; 156:449-455
 - 2 Cole-Beuglet C. Ultrasound Analysis of 104 Primary Breast Carcinomas Classified According to Histopathologic Type. *Radiology* 1983; 147:191-196
 - 3 Stavros AT. Solid Breast Nodules: Use of Sonography to Distinguish Between Benign and Malignant Lesions. *Radiology* 1995; 196:123-134