

BREAST FINE NEEDLE ASPIRATES WITH SCANT CELLULARITY ARE CLINICALLY USEFUL

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Introduction: Benign breast lesions with scant epithelial content (fibrotic fibrocystic change, lipoma, fat necrosis, scar, etc.) usually produce fine needle aspirates with scant cellularity, which are considered inadequate by current pathology standards. We hypothesized that such aspirates are clinically useful and can avoid unnecessary invasive breast biopsies.

Methods: We reviewed a ten-year (1994-2003) database of palpable breast lumps evaluated at a University multidisciplinary breast clinic by FNA collected on-site, and doubled-read. All FNAs with scant cellularity but without evidence of malignancy (negative SC-FNAs) were identified and correlated with the occurrence of any subsequent cancers (false negative SC-FNAs) and with triple test scores (TTS; 3 to 9, based on FNA, breast imaging studies, and clinical breast examination [CBE] results).

Results: Of a total of 5,505 FNAs done for palpable lesions, 324 (6 %) were negative SC-FNAs. These occurred in 248 women (62 had two lesions sampled and 7 had three). At a median follow-up time of 20 months, cancers were subsequently diagnosed in 14 of these cases. Of these, 5 were associated with areas other than those sampled, leaving 9 cancers found at sampled sites despite a negative SC-FNA (i.e. false negative rate and negative predictive value for SC-FNAs of 2.8% and 96.7%, respectively). Of these 9 cancers, 7 were associated with a suspicious or malignant TTS (i.e. scores 5 or greater) and therefore still correctly diagnosed as malignant or suspicious for malignancy. The remaining 2 cancers were missed by both SC-FNA and TTS (false negative rate for TTS of 0.6%); however, both had scores of 4 (i.e. imaging was suspicious).

Conclusions: Scantly cellular but negative FNAs are useful (can avoid unnecessary invasive breast biopsy) in the evaluation of palpable breast masses, especially when interpreted in the context of the TTS. Current pathology definitions of specimen adequacy should be revised.