

Quantity Insufficient Lesions in Ultrasonography-guided Fine-needle Aspiration Cytology of Breast Lesions

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ABSTRACT

Objective: To reassess 'quantity insufficient' fine-needle aspiration cytology breast lesions and explore ways to minimise such reporting.

Methods: Ultrasonography-guided fine-needle aspiration cytology of breast lesions performed in 2009 and labelled 'quantity insufficient' were reviewed. The nature and size of lesion, the fine-needle aspiration cytology needle size, the number of passes, years of sampling experience of the respective radiologist, and outcome of the lesion / patient were assessed.

Results: A total of 593 women, having 673 breast lesions of Breast Imaging-Reporting and Data System of R2 or above, underwent ultrasonography-guided fine-needle aspiration cytology during the defined period. In all, 88 lesions (all hypoechoic) in 76 women (24-78 years old) with at least one 'quantity insufficient' report in 2009 were identified. Most fine-needle aspiration cytology was performed by two passes with a 22G hypodermic needle. All were performed by radiologists with experience in such biopsies ranging from 1 to more than 10 years. Most lesions were 5 mm to less than 10 mm in size. The fine-needle aspiration cytology reported as 'quantity insufficient' had a rate of 15%, and the mean number of aspiration attempts for each lesion was 1.8. Five lesions eventually underwent core biopsy or excision. Of the 88 lesions, 40 (45%) were benign lesions, 12 (14%) were cysts, and 3 (3%) were fat lobules. Based on interval ultrasounds, 20 (23%) of the lesions were static or shrunken, and 5 (6%) were not found; the remainders were pending interval ultrasound.

Conclusion: The rate at which ultrasonography-guided fine-needle aspiration breast lesion cytology reported as 'quantity insufficient' could be minimised by remarking the nature of lesion, modifying the method of sampling, and maximising interdepartmental communication. More than 90% of 'quantity insufficient' lesions were eventually found to be benign or static on repeated fine-needle aspiration cytology or follow-up.

Key Words: Biopsy, fine-needle; Breast neoplasms; Mammography; Predictive value of tests; Stereotaxic techniques

中文摘要

超聲引導細針穿刺抽吸活檢病變組織量不足乳腺病變

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目的：探討乳腺病變細針穿刺抽吸活檢病變組織量不足的情況，及找出方法盡量減少此類問題出現。

方法：回顧2009年在本院進行乳腺病變超聲引導細針穿刺抽吸活檢被認為病變組織抽吸量不足病例。並評估病灶的類別及大小、用針的大小、穿刺的次數、放射科醫生對抽取有關組織的經驗年

資、及病灶/病人的結果。

結果：2009年期間有593名女性，共673個乳腺病變，於乳腺影像報告和數據系統（BI-RADS）達R2級或以上，進行超聲引導細針穿刺抽吸活檢。當中發現76名介乎24至78歲的病人中，88個乳腺病變（均為低回聲灶）有至少一次抽吸量不足的報告。大部份檢查都以22G皮下穿刺針穿刺兩次。所有活檢均由有一年至超過十年的相關經驗放射科醫生進行。多數病灶為5毫米至少於10毫米不等。被認為是病變組織抽吸量不足的比率為15%，每個病灶平均有1.8次的活檢。有5個病灶最終進行小切片或切除手術。88個乳腺病變中，40個（45%）為良性、12個（14%）為囊腫、3個（3%）為脂肪小葉。中期超聲檢顯示有20個（23%）病灶呈靜止狀態或縮小，5個（6%）為陰性；其餘的病灶有待進一步超聲檢結果。

結論：要減少超聲引導細針穿刺抽吸活檢中乳腺病變組織量不足的情況發生，須要知悉病變的類別、修改抽取組織的方法、並加強各部門間的溝通。超過九成抽吸量不足的病變通過重複細針穿刺細胞學或隨訪後發現為良性組織或呈靜止狀態。