

One-day core needle biopsy in a breast clinic: 4 years experience

Joris P. Bulte · Lenny Polman · Margrethe Schlooz-Vries · Annelies Werner ·
Renate Besselink · Kelly Sessink · Roel Mus · Susanne Lardenoije ·
Mechli Imhof-Tas · Johan Bulten · Adriana C. H. van Engen-van Grunsven ·
Ewout Schaafsma · Luc J. A. Strobbe · Peter Bult · Johannes H. W. De Wilt

Received: 24 November 2012 / Accepted: 3 December 2012
© Springer Science+Business Media New York 2012

Abstract Many attempts have been made to combine the high diagnostic accuracy and conclusive rate of core needle biopsy (CNB) with the speed of fine needle aspiration cytology in evaluation of solid breast lesions. Multiple hybrid techniques have been developed to achieve this. We describe a cohort of patients for whom we used a relatively new, accelerated method of CNB processing, allowing for a definitive diagnosis the same day. All patients visiting the Radboud University Nijmegen Medical Centre breast clinic during a 4-year period were reviewed to identify all CNBs in this period performed in a same-day diagnosis track. CNB result was compared to post-operative pathology reports when available, and to follow-up when patients were not surgically treated. 1,060 patients underwent CNB of 1,383 lesions, 898 of which in a same-day diagnosis track with a sensitivity of 96.9 % and a specificity of 99.4 %. The inconclusive rate was 9.2 %. For a same-day diagnosis for solid breast lesions, we could give a

conclusive diagnosis with accelerated CNB processing in 65 % of our patients requiring CNB. This technique can be used reliably in a same-day diagnosis breast clinic with a very high sensitivity, specificity, and conclusive rate.

Keywords Breast cancer · Diagnosis · Core needle biopsy · Solid breast lesion · Test characteristics

Introduction

Since the first description [1] of ultrasound-guided core needle biopsy (CNB), CNB has progressively replaced fine needle aspiration cytology (FNAC) as the standard of care for evaluation of suspicious breast lesions. CNB is considered to have superior accuracy and especially a lower rate of inconclusive pathologic diagnoses [2–7] and therefore less additional biopsies. FNAC has the advantage