OBJECTIVES: To investigate whether ultrasound-guided vacuum biopsy (VB) with curative intent is suitable for the complete extirpation of selected sonographically detectable benign lesions of the breast, and to establish the limitations of the method with regard to lesion size and complications, the extent of scar formation and the prognostic value. METHODS: One hundred and nine patients underwent hand-held, ultrasound-guided VB (8G or 11G needle) between June 2000 and September 2003. Of these, 45 (41%) women underwent ultrasound-guided extirpation of 46 lesions, and 42 women with 43 lesions were followed up clinically and sonographically for an average of 5.9 months. The complete extirpation rate, residual lesions, and patient satisfaction with the intervention were evaluated. RESULTS: Removal of all sonographic evidence of lesions (median diameter, 13 mm) was achieved in 86% of cases (8G needle, 80%; 11G needle, 89%). 19% of the patients had suspected scar formation at the biopsy site. A palpable lesion in the breast could be removed by VB in 90% of cases. None of the patients developed infections and there were no hemorrhages requiring intervention, or damage to the skin or chest wall. A total of 95% of the patients stated that they would prefer this approach to open excision for
possible future intervention. CONCLUSIONS: VB is an ambulatory procedure associated with a low
degree of pain. It has a high degree of patient acceptance and, as a minimally invasive biopsy
technique for benign lesions, is a good alternative to open excision. The rate of complications is low
and is similar to that observed with conventional microbiopsy.