Percutaneous Radiofrequency-Assisted Excision of Fibroadenomas

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INTRODUCTION

Percutaneous excision of intact breast lesions has the dual potential advantage of causing minimal intervention combined with provision of adequate sample for thorough histopathology and margin analysis. In an attempt to review the safety and efficacy of a new radiofrequency-assisted device in accomplishing this goal, an 18-month retrospective review was undertaken.

METHOD

Between April, 2004 and November, 2005 100 patients underwent ultrasound- or stereotactic-guided, radiofrequency-assisted intact excision of 106 fibroadenomas of the breast. Patients were comprised of 100 females whose ages ranged from 18-70 years (median age, 45 years).

Ovation Stereo

Ovation Ultra

RESULTS

Indications for the procedure included: palpable mass, 77; abnormal mammogram, 13; and abnormal ultrasound, 10. Ultrasound was used to guide the procedure in 82 patients and stereotactic was used in 18 patients. One early study procedure was performed under general anesthesia; the remainder were performed under local anesthesia (1% lidocaine) utilizing from 10-45 ml. On pathologic examination the tumors ranged in size from 6-27 mm (mean diameter, 14 mm) and weighed from 0.6-2.0 gms (mean weight, 1.0 gm). Patients reported minimum discomfort related to the procedure; pain scores ranged from 0-10 (mean pain score, < 1). Complications were minimal with only two patients having bleeding which was controlled by conservative measures. At 4-6 month followup, 79 of 85 (93%) evaluable patients demonstrated no physical or imaging evidence of residual fibroadenoma, an additional 5 patients have reported no physical findings or further complaints and have required no further need for medical evaluation, 8 have been lost to followup, and 2 have yet to be reevaluated.

CONCLUSION

1. Percutaneous ultrasound- or stereotactic-guided, radiofrequency-assisted excision of fibroadenomas of the breast may be performed in an ambulatory setting under local anesthesia.
2. The procedure provides intact specimens which in most cases appear to be completely removed after follow up of 4-6 months
3. The procedure is well tolerated by patients and is associated with minimal complications