

THE ROLE OF DUCTAL LAVAGE IN ASSESSMENT OF PATIENTS WITH NIPPLE DISCHARGE

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Introduction: Ductal Lavage (DL) has been successfully used to sample epithelial cells from the breast. Efforts are underway to determine the sensitivity and specificity of DL for breast cancer detection and to better understand its role in individualized risk assessment. However, the value of ductal lavage in assessment of nipple discharge has not been fully realized. This study is a retrospective analysis correlating cytologic findings on DL with ductography and follow up surgical excision.

Methods: Ductal Lavage was performed on 11 women presenting with nipple discharge without any abnormality detected by breast exam and mammography. A follow up ductography was performed on 5 cases and 4 patients underwent duct excision.

Results: The patients' age ranged from 27 to 82 years old. Ductal Lavage was successful in 10 out of 11 cases with nipple discharge. Unsuccessful ductal lavage in one case was the result of inability to advance the catheter because of the resistance induced by a papillary lesion. Ductography was successful in 4 out of 5 cases, which demonstrated evidence of space occupying lesion in the ductal system. Upon surgical exploration of the ductal system, the spectrum of changes ranged from proliferative disease without atypia to papillary carcinoma. Atypia was observed in 5 out of 10 cases of ductal lavage and one case was called malignant. Among this group cytologic atypia in a young woman was typical of pregnancy-associated changes. One patient decided to repeat the ductal lavage at a later time and 4 patients underwent surgical intervention. There was 100% correlation between cytology and histology of the malignant case. Ductal Lavage cases that were called atypical showed proliferative breast disease without atypia in one case and intraductal papilloma in 2 cases.

Conclusion: Ductal Lavage provides an opportunity to diagnose a variety of benign and malignant breast disease in patients who present with nipple discharge. This approach is an important diagnostic step in evaluation of patients for whom no other minimally invasive sampling alternatives are available. In addition, recognition of morphologic features seen in ductal lavage from these patients with proven anatomic abnormalities in their mammary ductal system provides a unique opportunity to learn more about the nipple fluid cytology.