

**UTILITY OF FINE NEEDLE ASPIRATION CYTOLOGY AS A
PROGNOSTIC INDICATOR IN BREAST MALIGNANCIES BY
CYTOLOGICAL GRADING AND CORRELATION WITH
HISTOLOGICAL GRADE**

by

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ABSTRACT

Background and Objectives:

Breast cancer is the second most prevalent cancer among Indian women, first being cervical cancer. Fine needle aspiration cytology (FNAC) can be utilized to determine various prognostic markers in patients with breast carcinoma. FNAC helps in grading of breast carcinoma, while tumor is still in vivo, which would be ideal and desirable for prognostication. This study was undertaken to cytologically grade breast carcinoma by two systems, compare each other, to determine which one of them correlates well with the histological grade and to assess the utility of cytological grade as an indicator of prognosis.

Methods:

A total of 60 cases of Breast carcinoma were studied from January 2007 to January 2012 whose FNAC and biopsy were performed in our institute. Cytological grading was carried out using Robinson and Mouriquand grading systems and were compared with each other and then each of them were compared with Modified Scarff-Bloom Richardson (MSBR) histological grading system. Concordance and discordance was accordingly noted amongst them. Patients were followed up to assess the utility of cytological grade as an indicator of prognosis and the survival rate was calculated.

Results:

A total of 60 cases were studied, ages ranging from 35-79 years. By Robinson's system 20, 56.67 and 23.33 percent aspirates were graded as I, II and III

respectively. Using Mouriquand's grading 16.67, 55 and 28.33% aspirates were graded as I, II and III respectively. Agreement between each other was 82.5%. Agreement between Robinson and MSBR histological grading was 89.17% and between Mouriquand and MSBR histological grade was 80%. Diagnostic accuracy of Robinson's system was 86.67 % and specificity was 70% while Mouriquand system showed an accuracy of 76.67 % and specificity of 30%.

Interpretation and Conclusion:

Comprehensive cytological grading of breast carcinomas was possible using Robinson's and Mouriquand's cytological grading system and the concordance between them was 65%. Further of the 2 cytological grading systems Robinson's was better because of more objective criteria and easy reproducibility.

KEYWORDS: Breast carcinoma; cytological grading; histological grading; fine needle aspiration cytology.