

Comparative Study between Breast Cytology and Histology in Saudi Females

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Abstract

The objective of this study is to outline the pattern of breast lesions in Saudi Arabian females who are diagnosed by Fine Needle Aspiration Cytology for a clinically palpable breast mass, and to determine the level of diagnostic accuracy in cytology with subsequent histological comparison whenever possible. A retrospective clinical study targeting 312 Saudi female patients being evaluated for clinically palpable breast mass that were performed and reported at King Abdulaziz University Hospital, Jeddah from 2000 to 2009. This result indicated that while fibroadenoma is the most frequent benign tumor, infiltrating duct carcinoma is the most common malignant tumor in Saudi Arabian females on Fine Needle Aspiration Cytology and histological examination. Based on this, the overall distribution of breast diseases was as follows: inflammatory lesions were 8.65%, benign lesions were 45.83%, highly suspicious/atypical lesions were 8.33%, malignant lesions were 30.76% and unsatisfactory smears were 6.41%. Analysis of histological correlation in patients revealed a sensitivity of 91.58% and a specificity of 97.75%. False negative fraction was of 4.59% which on histology turned out to be infiltrating duct carcinomas. Causes of cytohistological discrepancy were outlined in order to increase awareness of such conditions.