

Diagnostic Accuracy of Touch Imprint Cytology in Ovarian Neoplasms

Aisha Riaz, Ahmareen Khalid, Ashok Kumar Tanwani
Department of Pathology, Shaheed Zulfiqar Ali Bhutto Medical University,
Pakistan Institute of Medical Sciences, Islamabad

Abstract

Objective: The present study was done to ascertain the status of intraoperative Touch Imprint cytology as a diagnostic and supportive investigation for ovarian neoplasms thus facilitating individualized treatment.

Study design: Cross sectional study

Setting: Department of Pathology, Shaheed Zulfiqar Ali Bhutto University, Pakistan Institute of Medical Sciences, Islamabad

Duration of study: 2 years, January 2011 to June 2013

Methodology: Touch Imprint smears were made from fresh unfixed ovarian samples received. Imprints were taken and slides were immediately fixed in 95% ethyl alcohol and stained with the haematoxylin and eosin stain. The results of Touch Imprint cytology and the results were compared with the final histopathological diagnosis in each case.

Results: The total number of ovarian tumors studied was 60. Age range of the patients was 10 to 70 years. Out of 60 cases there were 31 benign lesions, 4 borderline epithelial neoplasms and 25 malignant tumors according to the final histopathological diagnosis. The touch imprint results labeled 32 lesions as benign and 28 lesions as malignant. Comparing the histopathology and touch imprint results, 55 out of 60 cases were concordant with sensitivity and specificity of 93% and 83.3% respectively.

Characteristic cytological patterns and morphology was observed in various ovarian neoplasms.

Conclusion: Touch Imprint cytology can be utilized as an adjunct to histopathology as a quick diagnostic tool with high diagnostic accuracy.

Keywords: Touch imprint cytology, Fine needle aspiration cytology (FNAC), Ovarian neoplasms.