

ASPIRATION CYTOLOGY OF OVARIAN CYSTS AND CYSTIC NEOPLASM: A STUDY OF 39 ASPIRATES

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Abstract:

Background: Fine needle aspiration cytology has been widely applied in the diagnosis of ovarian cysts and cystic neoplasms, it offers the advantages of rapid diagnosis, minimal trauma to the patient and low cost, yielding relatively acceptable diagnostic sensitivity and specificity.

Objective: To evaluate the sensitivity and specificity of aspiration cytology in the diagnosis of ovarian cystic lesions.

Methods: 39 female patients with clinico-radiological diagnosis of ovarian cysts and cystic neoplasm underwent ultrasonic guided aspiration cytology in the period from January 2000 to June 2003 at Al-Kadhimiya Teaching Hospital.

Results: Thirty-nine female patients with an age range of 21-48 years underwent ultrasonic guided aspiration cytology of an ovarian cystic lesion. There

were thirteen female patients with non neoplastic cysts while twenty six female patients had neoplastic cystic lesion with various histogenesis including (surface epithelial and germ cell type) predominantly benign tumors, while three cases revealed malignant serous cystadenocarcinoma. The over all sensitivity around 37.5% considering the inadequate cytological smears as a false negative result and specificity of 100%.

Conclusion: Fine needle aspiration cytology in the evaluation of ovarian cysts and cystic neoplastic lesions is safe, reliable and rapid diagnostic procedure yielding relatively acceptable sensitivity and specificity.

Key word: FNAC, ovarian cystic lesions

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Introduction

Fine needle cytology has been widely applied in the diagnosis of tumors and tumor like lesions of the abdomen including ovarian lesions^[1-7]. It offers the advantages of rapid diagnosis, minimal trauma to the patient, low cost when compared with the standard surgical biopsy. The objective of this study is to evaluate the sensitivity and specificity of fine needle aspiration cytology in the diagnosis of ovarian cystic lesions.

Material & methods

From January 2000 to June 2003, 39 female patients with clinico-radiological diagnosis of ovarian cysts and cystic neoplasm underwent fine needle aspiration cytology under ultrasonic guidance using different

approaches and different needle lengths and gauges, all patients were seen at Al-Kadhimiya Teaching Hospital at radiology unit.

The aspirates were done using 20-23 gauge spinal disposable needles with different lengths depending on the depth of the lesion and ideal approach for the aspiration with the patient in supine position. Four smears were made from the precipitate after cytopspin, the obtained fluidy sample for each patient was fixed immediately in 25% ethyl alcohol for at least 30 minutes. Smears were stained by hematoxylin and eosin H&E. If fragments of tissues were obtained from the solid part of the cystic neoplasm lesions, they were processed as cellblock preparation. An immediate post aspiration sonography was done to assess and monitor complications. It was possible to compare the cytological result with the histopathological result in 29 cases.

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