

## **Discussion**

The use of fine needle aspiration cytology in gynecology was relatively unknown until experiences with ovarian cystic lesions were published in 1970<sup>[8]</sup>. Ultrasound experiences was led by the work of Ramzy et al detailing the cytopathologic characteristics of ovarian epithelial neoplasms in 1978<sup>[2,10]</sup>, then the use of fine needle aspiration cytological diagnosis in other aspect of gynecology was reported by Sevin et al<sup>[11]</sup>, Moriarity and others<sup>[12,13]</sup>. Since then a proliferation of highly accurate radiographic imaging and guidance technique has made possible accurate cytological sampling of deep pelvic ovarian cystic lesions with low morbidity. The target organ can be reached by percutaneous, transvaginal, or during laparoscopy route.

Transvaginal aspiration is used in three cases only with deeply seated pelvic ovarian cystic lesions especially when solid portions of the cystic neoplasm gravitated deep in the pelvic cavity in which cannot be reached through percutaneous rout.

Regarding the non-neoplastic functional ovarian cystic lesions, there is controversy whether to aspirate or not. In the present study, the policy to do the aspirate was the following<sup>[4,14]</sup>:

1. Persistent ovarian cystic lesion though the size of the cyst was less than 5 cm in volume using ultrasound.
2. When the size of the cyst was more than 5 cm in volume.
3. When ultrasonic features of thick irregular wall, multiloculation, or presence of solid portion within the cystic lesions were encountered.

Recently ultrasonic guided ovarian cyst puncture with our without instillation of sclerotherapeutic agents would appear to be a valid alternative to surgery for carefully selected benign ovarian-whether neoplastic or non neoplastic- cysts, especially when the (size is more than 10 cm, the presence of multiloculation, or the suspicion of malignancy) was encountered as a therapeutics management<sup>[14,15]</sup>.

The sensitivity of the test in the present study is relatively lower in comparison to others because of (the limited number of cases, we had no previous experience in that field before, and the fact that nearly all samples were fluidy which usually yielded scattered epithelial cells for cytological study)<sup>[2,4,5,7,8,14]</sup>.

No significant complications were encountered in this study apart from a vasovagal attack encountered in one case (7.6%).

## **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.

## **Recommendation**

Further study are advisable regarding the increasing of number of patients, and the use of this technique not only for diagnosis but also for therapeutic management.

## **References**

1. Khanna AK, and Misra MK: Fine needle aspiration cytology of abdominal masses. *J Surg Oncol*, 1990; 44 (1): 15-9.
2. Dey P, and Saha SC: Fine needle aspiration biopsy of ovarian neoplasm. *Indian J Pathol Microbiol*, 2001; 44 (2): 103-6.
3. Rubenchick I, and Auger M: Fine needle aspiration cytology of ovarian cysts in in-vitro fertilization patients: a study of 125 cases. *Diagn Cytopahol*, 1996; 15(4): 341-4.
4. Mulvany NJ: Aspiration cytology of ovarian cysts and cystic neoplasm: a study of 235 aspirates. *Acta Cytol*, 1996; 40(5): 911-20.
5. Ganjei P: Fine needle aspiration cytology of the ovary. *Clin Lab Med*, 1995; 15 (3): 705-26.
6. Anerson WA, and Nichols GE: Cytologic diagnosis of ovarian tumors: factors influencing accuracy in previously undiagnosed cases. *Am J Obstet Gynecol*, 1995; 173 (2): 457-63, discussion: 463-4.
7. Granados R: Aspiration cytology of ovarian tumor. *Curr Opin Obstet Gynecol*, 1995; 7 (1): 43-8.
8. Tord A, and Kjellyren MD: The cytologic diagnosis of ovarian tumors by mean of aspiration biopsy. *Acta Cytol*, 1972; 26 (4): 336-42.
9. Ramzy I, and De lancy M: Fine needle aspiration of ovarian masses: correlative cytologic and