

# EVALUATION OF CYTOPATHOLOGICAL DIAGNOSIS IN CASES OF ABNORMAL UTERINE BLEEDING

By

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## SUMMARY

Endometrial aspiration cytopathological study is a simple, safe, dependable, outdoor procedure, which can be done in abnormal uterine bleeding cases with successful results upto 92.5% cases. The results are quickly available within an hour.

### Introduction

One or more abnormal episodes of abnormal uterine bleeding during reproductive period worries the patient for which correct and prompt diagnosis is required. A histopathological report is always necessary by doing curettage. This method can be simplified by doing cytopathological tissue study by aspiration method. Latter procedure in the study has been found to be simple, requires little time, short stay in the hospital and no surgical or anaesthesia problems.

A comparative study of the aspiration technique was done on 100 patients after taking thorough history and general physical examination.

### Material and Method

Aspiration was done prior to the curettage in all the patients under study to compare the success.

For aspiration Karman Canula No. 4 was used attached to the MR syringe with vacuum force. The aspirate was

smearred on a glass slide immediately and was dried and stained with H & E stain. At the same time curettage was done and curettings were sent for HPE in formalin.

The statistical analysis of 100 patients included with various pathological entities is tabulated below.

TABLE I  
*Clinical Diagnosis*

Clinical diagnosis	No. of cases
DUB	82
Post menopausal bleeding	5
Fibroid uterus	5
Post tubectomy menorrhagia	4
Prolapse uterus with DUB	1
Secondary amenorrhoea	1
H. mole (follow up) case with irregular bleeding	1
Malignancy	1
Total	100

### Observations

The results of two studies were compared as given below (Table II).

The accuracy of cytological diagnosis in different benign lesions was 85%.

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TABLE II  
Accuracy of Cytological Diagnosis of 100 Cases

Nature of lesion	No. of cases proved histopathologically	proved cytologically	Accuracy %
Proliferative endometrium	50	48	96
Endometrial hyperplasia	24	22	91.7
Secretory endometrium	10	8	80
Irregular endometrium	7	6	85.7
Malignancy	3	3	100
Insufficient material	3	12	
Hydatidiform mole	1	—	100
Chronic endometritis	1	—	
Necrotic products of conception	1	—	
	100	100	

Three cases of malignancy were also proved on cytology with accuracy rate of 100% while clinically only 1 was suspiciously diagnosed. Another case was clinically diagnosed as DUB but histopathology and cytology proved it to be a case of choriocarcinoma.

The third case of post-menopausal bleeding also turned out to be malignant cytologically.

Proliferative endometrial cells were closely packed and had a well preserved, round, hyperchromatic nucleus and very little cytoplasm (Fig. I).

In secretory phase, endometrial cells were easily recognised by large distinct secretions occupying almost whole of the cytoplasm distorting the nucleus (Fig. II).

Cytologically hyperplasia was evidenced by over abundance of cells. The endometrial cells appeared in tight groups, 3-4 times the normal size and their borders were clearly delineated. The nuclei were large round to ovoid in shape, 3-4 times than normal size but regular and benign in morphology (Fig. III).

Malignancy was diagnosed by change in nuclear cytoplasmic ratio, mitotic

figures and change in chromatin pattern (Fig. IV).

#### Discussion

Since endometrial aspiration gives equally good results, this method is gaining wider favour. As the procedure is simple, no anaesthesia is required. So patient accepts it easily. It reduces the work load and stay in the hospital.

It was thought by Merchette and Papanicolao (1943) that if endometrial cells could be collected at source then they are without degeneration and can be better evaluated instead of desquamated cells collected from cervicovaginal smears and studied, showing a tendency to degenerate.

In the present study aspiration cytology was carried out to evaluate the utility and reliability of this procedure in abnormal uterine bleeding cases. Accuracy of cytology was compared with histopathological study. Benign lesions were well diagnosed in 97 cases out of 100 cases. Correct diagnosis could be made in 85 cases only by cytology. While in 12 cases the report was incon-

clusive. Comparing this excluding three cases of malignancy, on histopathology out of 97 cases, only 91 cases were diagnosed correctly with benign lesions, one each molar pregnancy and necrotic products of conception. While insufficient and inconclusively reported in three cases only. On an average, the accuracy of the result was 92.5% in our study. These results are quite comparable to that of Amodio and Philip (1973) 92.2%, Elso Sequadel (1980) 96%.

Insufficient material or poor preparation or accidents of fixation were considered to be the cause of failure in 12% cases of cytological study.

*References*

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*See Figs. on Art Paper II*