

ENDOMETRIAL ASPIRATION CYTOLOGY

(Preliminary Study of 50 cases)

by

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Dilatation and curettage is by far the most reliable technique for diagnosis of malignant and pre-malignant endometrial abnormalities, because of its accuracy. Though the rate of endometrial cancer is now surpassing invasive cervical cancer in most of the western population, we have very few cases of endometrial cancer in our hospitals. Many women however seek advice for dysfunctional uterine bleeding in the perimenopausal period. As the yearly clinical and cytological screening is poor in our country due to lack of proper follow up, many gynaecologists prefer to perform hysterectomies in these women who have completed their child-bearing. Many of these women undergo preliminary curettage for excluding endometrial carcinoma. This increases hospital stay, cost and risk of anaesthesia in addition. The morbidity of hysterectomy is supposed to be more if done following more than 48 hours after D & C. It is impossible to get the histopathology report of the curettage within 48 hours. Hence we thought of studying a screening techni-

que of endometrial aspiration to exclude the endometrial carcinoma in these suspected cases.

Material and Methods

A total of 50 patients attending gynaec. Out patient dept. of L.T.M.M. College and Hospital Sion, Bombay 400 022, from January 1979 to December 1979 had undergone endometrial aspiration. Endometrial aspiration was done by using endometrial aspiration cannula attached to 10 cc. syringe for suction. Initially we had used menstrual regulation syringe and cannula for sucking out a few cc.s. of aspirate only. Aspirate was smeared and processed after fixing as in the case of Papanicolaou staining. Endometrial biopsy was performed in all the cases in order to correlate the aspiration results with histopathology results.

Results

Majority (54%) were from the age group of 31-55 yrs and 86% were having hypermenorrhoea.

Table I shows endometrial aspiration reports in relation to the type of menstruation. There were 43 cases with hypermenorrhoea, 22 of them showed stromal elements and 10 showed broken glandular elements on endometrial aspiration. We

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TABLE I
Endometrial Aspiration Reports

Type of Menstruation	Total No. of patients	Findings: No. of specimens			
		No material	Broken Glandular Elements	stromal Elements	Endocervical cells
Hypermenorrhoea	43	5	10	22	6
Postmenopausal bleeding	4	—	1	2	1
Normal or scanty periods	3	—	—	2	1
Total	50	5	11	26	8

(N.B.— Syncytiotrophoblast cells were seen in one case of vesicular mole with normal menstruation on follow up, adenocarcinoma cells were seen in a case of carcinoma endometrium with hypermenorrhoea).

could not get any material in 5 cases. In 1 case of suspected adenocarcinoma we could get adenocarcinomatous cells on endometrial aspiration which was proved later on by biopsy.

Table II shows the number of cases in whom we could get correlation between

TABLE II
Endometrial Aspiration and Histopathology Correlation

Endometrial Aspiration Reports (No.)	No. of patients with Histopathology correlation
Syncytiotrophoblast	1
Endometrial glands	11
Stromal cells	26
Suspected adenocarcinoma	1
Polymorphs	1

pathology in a case of vesicular mole, with normal menses three months after evacuation of the mole. In 11 cases we could see broken endometrial glands of which 5 had glandular hyperplasia on histopathology as well as aspiration cytology. Out of 26 cases in whom we could see stromal cells, atypical stroma and stromal hyperplasia was seen in 14 of them in both endometrial aspiration cytology and histopathology. In 1 case of hypermenorrhoea, adenocarcinoma was suspected from aspiration cytology which was later proved by biopsy report. In a case of endometritis on histopathology, lots of polymorphs were seen on endometrial aspiration cytology.

Discussion

The routine vaginal and cervical Papanicolaeu smear is not reliable in screening for endometrial carcinoma but it can give valuable information about endometrial lesions. However, endometrial cells in the vaginal or cervical smear in second half of the cycle or in

aspiration cytology reports and histopathology reports. Syncytiotrophoblastic cells were seen in both aspirate and histo-

second half of the cycle or in postmenopausal patients may raise the suspicion of endometrial cancer. The accuracy of vaginal and cervical smears to detect endometrial carcinoma varies from 18-66%.

Intrauterine methods appear to have a great promise for screening endometrial carcinoma because of their ability to obtain a fairly representative sample from the uterine cavity. Most of these techniques have been highly accurate in diagnosis of endometrial carcinoma, although they have been less accurate in precursor lesions. Use of cytologic detection technique is still basically limited by the experience of cytopathologists, many of whom have had limited experience with endometrial lesions. Advantages of aspiration technique include their relative simplicity and abundance of cellular material that can be obtained. Most aspiration techniques have reported accuracy of 84-93% (Muenzer *et al* 1974, Rascoe 1963). There have been many modifications of the basic techniques viz. Issac cell sampler, jet wash, endometrial lavage, plastic spiral technique and endometrial brush technique etc.

However, we have used the simple technique of aspiration with endometrial aspiration cannula attached to a 10 cc. syringe for suction. Initially for first 20 cases we did not have this cannula and we have used a small plastic cannula attached to a menstrual regulation syringe for aspiration of few cc.s. of fluid only.

Though in this small series we had only 1 case of endometrial carcinoma, we did get samples from the uterine cavity in 45 cases. We feel that only blood clots or no material also assures us of the absence

of endometrial malignancy. We found correlation of endometrial hyperplasia on histopathology and endometrial aspiration cytology in 5 cases.

According to Kawada and An Foraker, (1979) endometrial cytology is now at the stage where cervical cytology was many decades ago. We feel that it is a good screening technique atleast for patients who have excessive menstruation in the perimenopausal period and who are otherwise scheduled for hysterectomy, so that D & C can be omitted for these patients. With wider experience gained we can use this technique prior to hormonal treatment in menstrual abnormalities and as a screening technique in women at high-risk for endometrial carcinoma. In addition to detect carcinoma of the endometrium, aspiration cytology may be of use in judging the menstrual phase, non-neoplastic lesions like endometritis and products of conception (retained products or molar elements) etc.

Conclusions

Preliminary study of 50 cases of endometrial aspiration cytology is presented. 90% of the cases had either hypermenorrhoea or postmenopausal bleeding. Histopathology and aspiration cytology correlation was possible in most of the case.

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