

CERVICAL SMEAR STUDY IN 1000 KASHMIRI WOMEN

by

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Introduction

The role of Papanicolaou's smear as a means of early detection of neoplastic changes has become increasingly important to the obstetrician and gynaecologist. With its use, the progression of malignant change from dysplasia to invasive carcinoma has been demonstrated.

It has been stated by many that with the assiduous applications of the Papanicolaou smear clinical carcinoma of the cervix will be markedly reduced in future.

Cancer of the uterine cervix is the most common malignant tumour among women in India. The varying frequency of carcinoma of cervix in different parts of the country is dependant upon certain environmental factors such as socio-economic conditions, sexual experience, age at marriage, fertility and penile hygiene. Aim of this paper is to review our experience with the routine use of the Papanicolaou smear in selected cases and to

evaluate the possible approaches to the positive smear.

Material and Methods

The study was carried out in Govt. Hospital for Women, Srinagar, Kashmir from the year 1970-1976. Criteria for selection of cases were patients with unhealthy cervix, cervical erosion or chronic vaginal discharge. A total of 1000 cases were examined. Scrapping from portio vaginalis was obtained by means of Ayre's spatula for cytological examination. The smears were fixed immediately and later on stained by Papanicolaou method.

Results

All the patients studied were married and aged 20 years or above. 70% were in the age range of 30-40 years. Parity was high being 3-6 in 65% of the cases.

Two predominating religions of the patients attending the outdoors were Muslims and Hindus. They constituted 76.30% and 20% respectively.

Table II depicts clinical appearance of the cervix. 35% had cervical erosion. Unhealthy cervix was seen in 9 patients, i.e. 0.90%. Cervical growth was encountered in 5 cases. Dysplasia was seen

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TABLE I
Clinical Appearance of Cervix

S. No.	Clinical Appearance	No. of patients	Percentage
1.	Healthy Cervix	343	34.30%
2.	Cervical erosion	350	35.00%
3.	Chronic cervicitis	177	17.70%
4.	Irregularly torn cervix	90	9.00%
5.	Growth cervix	5	0.50%
6.	Cervical polyp	5	0.50%
7.	Unhealthy cervix	99	9.9%
8.	Prolapse with decubitus ulcer	21	2.10%
Total		1000	100.00%

in 25 (2.5%) cases, carcinoma in situ in 3 patients and invasive carcinoma in 11 patients. Normal smear was seen in 650, 6.5%. In the remaining 311 cases, the smear showed inflammatory changes. The percentage of abnormal smears in 1000 patients was 3.90%.

Different grades of dysplasia seen in our series is shown in Table II.

TABLE II
Different Grades of Dysplasia

S. No.	Type of Dysplasia	No. of cases
1.	Mild Dysplasia	10
2.	Moderate Dysplasia	10
3.	Severe Dysplasia	5
Total No. of Dysplasia		25

Histological diagnosis was made in all abnormal smears except mild and moderate dysplasia which were followed up with cytology. The follow up period varied from 3 months to 2 years. During this period all the cases showed regression of their cytological atypicality. Cervical biopsy was done in all the cases of severe dysplasia and had later on total abdominal hysterectomy performed.

Three cases with carcinoma in situ

confirmed after cervical biopsy received definitive therapy by abdominal hysterectomy, because all of them had completed their family and had no desire for further pregnancies. All of them are under follow up study and are doing well. Irradiation therapy or Wertheims hysterectomy was done for the invasive carcinoma of the cervix.

Table V demonstrates the mean age of

TABLE III
Mean Age of Patients with Neoplasia

S. No.	Diagnosis	Age in Years
1.	Mild and moderate dysplasia	26 years
2.	Severe dysplasia	28 years
3.	Carcinoma in Situ	30 years
4.	Invasive carcinoma	55 years

the patients in each diagnostic category. Mean age of patients in dysplasia group was 26 years. This emphasizes the importance of annual cytologic smear in the young patients.

Discussion

A total of 1000 cases were examined cytologically. The incidence of dysplasia of all grades of severity was 2.5%. An incidence varying from 2.3% to 7.5% has been given by different authors (Mackey *et al*, 1959; Wahi *et al*, 1969; Rao *et al*, 1973 and Chakravarty *et al*, 1976). Of the 25 cases of dysplasia, 20 belonged to the mild and moderate variety. Only 5 cases had smear pattern of severe dysplasia. All the 5 cases were confirmed by cervical biopsy.

Correlating the age of patients and dysplasia the mean age was found to be 26 years, in mild and moderate dysplasia and 28 years in severe dysplasia. Herbert *et al* (1976) is almost consistent

on the point that the mean age of moderate dysplasia was 26 years and severe dysplasia 27 years.

As far as the significance of cytological atypicality is concerned, varying reports are available in the literature. Nelson and Hall (1968) consider atypical smears benign and simply recommended periodic repeats at 12 month intervals. A similar view is held by Hammond *et al*, (1968) who consider atypical change as negative. In contrast Herbert *et al*, (1976) on analysis of atypical smears have continued to find cases of carcinoma in situ. In 10% of the patients with carcinoma in situ having an initial atypical smear, a repeat smear progressed to a higher level of abnormality. It is increasingly evident that a persistent atypical smear requires tissue for adequate histologic evaluation. Other authors like Nyirjesy (1972) and Hulka (1968) have reached to similar conclusion. Figg *et al*. (1970) reports that one sixth of their cases of cancer were found in patients with atypical smear. Significant neoplasia was found by Davis *et al* (1972) in 31% of patients with persistent atypical cytologic smears. Chakravarty *et al* (1976) report that 43.47% of severe dysplasia progressed to either carcinoma in situ or invasive carcinoma.

Cervical malignancy is said to be less prevalent in Jews and Muslims who practice circumcision strictly during infancy. In our series the muslim patients formed a majority, and out of 763 patients incidence of cancer cervix was 1.17% and 3.50% in 200 Hindu patients. This difference could be due to the routine practice of circumcision in Muslims done a few days after birth to one year of life and because the study was carried out in selected patients only.

On analysing the cytological pattern in

different clinical conditions of cervix it was found that the highest incidence of abnormal smear was in clinically suspicious or unhealthy cervix and bad cervical erosion which bled on touch. Out of 25 cases of dysplasia, 14 were found in healthy cervix, 10 in cervical erosion and 1 in unhealthy cervix. Three cases of carcinoma in situ were found with the help of cytology from a patient with a healthy cervix. Other 2 cases were detected in patients with cervical erosion. Chakravarty *et al* (1976) have shown that in their series 21.5% of the cases of dysplasia were found in clinically healthy looking cervixes. Similarly Gray *et al* (1960) have reported in their series that the cervix looked normal in 23% of the cases with abnormal smears.

Rao *et al* (1970) reported highest incidence of dysplasia in association with endocervicitis and cervical erosion. There is thus no definite clinical impression which leads us to suspect the cases of dysplasia and carcinoma in situ. This once again stresses the importance of cytological examination in detecting abnormal lesions early enough for appropriate treatment.

Summary

Analysis of 1000 Smears taken from the Gynaecological outdoor is reported. The analysis is done with reference to religion, age and clinical appearance of cervix. Cytological pattern is then correlated with histopathological studies, on screening 25 cases of cervical dysplasia, 3 carcinoma in situ and 11 invasive carcinoma were detected.

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