

ROUTINE ANTENATAL VAGINAL OR, CERVICAL CYTOLOGY — A PROCEDURE ACCEPTABLE FOR MASS SCREENING

by

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Introduction

Cytological study of vagina and cervix for detecting the epithelial changes and recognising dysplasia of all grades for screening the high-risk subjects, have already received much attention in the last few decades. This procedure has been accepted as a reliable method for detecting and recognising early changes of female genital tract malignancy and should be considered as a preventive measure. Its value in the early diagnosis of cancer cervix is undisputed. Problem of practicability for screening, the readiness on the part of all segments of population to participate could be solved if we adopt this procedure routinely in all our antenatal clinics. This will help in giving us a correct picture of the epidemiology for cancer cervix and provide the opportunity to all clinicians for easy approach of all sections of the population.

The present communication discusses the findings of vaginal and cervical cytology of Manipuri pregnant women studied on an experimental basis for adopting it routinely in the antenatal clinic.

Material and Methods

We selected randomly 512 pregnant women of all parity and age group among the subjects attending our antenatal clinic for cytological study of vaginal and cervical smears. Posterior pool vaginal smears were taken from 230 cases and cervical smears from 282 cases using Ayre's wooden spatula. While taking the smear, the condition of the cervix and lower genital tract was also recorded. We used a specially prepared proforma for all these cases. Those having vaginal discharge, had saline drop slide examination of the discharge. All the dysplastic subjects were further analysed on the basis of—(a) age, (b) age at marriage and number of years of married life, (c) number of marriages/husbands, (d) sex habits (during/after delivery), (e) gravidity, (f) socio-economic status, (g) educational standard and profession, (h) family income, (i) type of family, (j) environmental sanitation and type of dwelling house, (k) history of vaginal operation (obstetrics/gynaecological), (l) presence of other factors such as—infection, use of loop or Cu-T/oral contraception, sexually transmitted disease, diabetes, deficiency diseases, douching habits. Relevant confidential questionnaire and the data of the above parameters were recorded and statistically analysed.

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Results

In this study, there were 203 cases of normal pregnancy, 18 inflammatory and 4 dysplastic smears among 230 vaginal smears, examined. Similarly, among 282 cervical smears, we detected 241 normal pregnancy, 35 inflammatory and 12 dysplastic smears. From a total of 512 smears, we could recognise 16 (3.12%) dysplastic subjects, 12 mild type and 4 moderate. The cytological findings of vaginal smears is shown in Table I and that of cervical smears in Table II. The type of dysplasia and age distribution of the cases is shown in Table III, and the gravidity distribution in Table IV. Condition of the cervix observed during examination at the time of taking the smears is indicated in Table V. The cases were within 18 to 50 years of age and they were married for 2 to 20 years. Only 3 cases had second marriage

TABLE III
Age Distribution of the Dysplastic Subjects

Dysplasia	Mild	Moderate	Severe
Age Range (in years)	23-49	24-30	—
Mean Age (in years)	30.92	28.5	—

TABLE IV
Gravidity Distribution of the Dysplastic Subjects

Dysplasia	Mild	Moderate	Severe
Gravidity	0-8	0-6	0
Mean gravidity	2.92	4	0
No. of cases	12	4	0

though the total family income was apparently high (average Rs. 658 per month) as they all belong to joint family with 7

TABLE I
Cytology of Vaginal Smears in 230 Cases

Cytology	Clumps of navicular cells	No. of clumps	Abnormal Cells				
			Inflammatory	Malignant	Dysplasia		
					Mild	Moderate	Severe
No. of cases	203	5	18	0	3	1	0
Percentage	88.26	2.17	7.83	0	1.30	0.43	0

TABLE II
Cytology of Cervical Smears in 282 Cases

Cytology	Normal Pregnancy smear	Inflammatory	Malignant cell	Dysplasia		
				Mild	Moderate	Severe
No. of cases	237	33	0	9	3	0
Percentage	84.04	11.70	0	3.19	1.06	0

while the rest (509) were married for the first time when smears were taken and their sex habits could be considered normal. The per capita income of these subjects were calculated at Rs. 94 per month,

members on an average. About 60 per cent of the subjects had education from sixth standard to post-graduate and 21 per cent of these were employed in various jobs. On the whole environmental

TABLE V
Cervical Condition of the Cases (512)

Type of Cervix	Tear of cervix	Cervi- citis	Erosion	Hyper- trophy	Polyp	Healthy looking
No. of cases	25	48	41	4	3	391
Percentage	4.88	9.37	8	0.78	0.58	76.37

sanitation was unsatisfactory and majority of them used open type of latrine, urinal and bath. None of them gave history of douching. In this series, only 57 had vaginal discharge and 3 had positive VDRL. No specific deficiency disease could be revealed among these cases, although 84 cases had haemoglobin below 10 gm per cent. All these parameters show no statistical significance.

Discussion

Vaginal or cervical cytology of 512 subjects studied during pregnancy revealed 172 abnormal smears including 16 dysplastic subjects. We could also recognise 121 unhealthy cervixes ranging from cervicitis to polypoidal growth as enumerated in Table V.

Vaginal cytology during pregnancy gives the information about the progress of the pregnancy, hormonal status, foetal wellbeings (Nanavati *et al*, 1977) and other pregnancy complications such as toxemia, diabetes mellitus, postmaturity, as well as placental conditions (Verma *et al*, 1980). It could also offer prognostic and diagnostic guide in lower genital tract infection (Prema and Nayak, 1978) and also in monitoring subjects with oral contraception (Radha *et al*, 1978). Many workers have been following routine cervical smear for screening the high-risk subjects by recognising the type of epithelial changes. The life pattern and external

influences favouring development of cancer cervix needs elaborate study by ascertaining the epidemiology of this disease. Recognising woman with cervical dysplasia and their socio-economic profile will further reveal other risk factors. The problem of involving all segments of population in the screening programme (Lulla *et al*, 1980) could be minimised if we take routine cervical or, vaginal smear during antenatal check up, at least once. It remains a fact that parous women are more liable to develop cervical cancer and we are fully convinced that dysplastic changes could be readily recognised during pregnancy as well. We are not surprised to detect as many as 16 (3.12%) dysplastic subjects in this study. This gives us an opportunity to suggest that vaginal or cervical smears should be routinely examined in all parous women. Of the two groups, we found cervical smear informative and reliable than the vaginal smear. Further, we could come to the conclusion after analysing the findings on a comparative basis of these two procedures that cervical smears should be accepted as a routine procedure for all types of cases.

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