CYTOLOGICAL SCREENING IN ANTENATAL WOMEN

by

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SUMMARY

Antenatal Screening for cervical dysplasia was made for 2300 women. Mild moderate or severe dysplasia was seen in 0.78%, 0.17% and 0.04% respectively. The overall incidence of dysplasia was 1%. Incidently unsuspected infections like condyloma and chlamydia were seen in 0.78% and 0.13% respectively. We did not find any increased incidence of dysplasia in relation to erosion, small, big or bleeding on touch. Antenatal cytological screening is an useful procedure for the early detection of cervical dysplasia.

Introduction

Early detection of cervical dysplasia and malignancies by vaginal and cervical cytological study is an established procedure. However, follow-up of the women remains a problem in any general O.P.D. During pregnancy women come regularly for follow-up. Dysplasias and in situ carcinomas occur 10 years earlier than invasive carcinomas. In general, fewer studies report (Bertine-Oliveier *et al*, 1983; Kirkup, 1980) screening cytology in pregnancy as compared to those in non-pregnant stage. The object of this study is to find out the incidence and the application of screening cytology in ante-natal women.

Material and Methods

Women attending antenatal clilnic of L.T.M.G. Hospital and College were selected at random for screening cytology. Smears were collected by swab-stick from the ecto and endocervix and also from the vaginal pool. Smears were fixed in solution of equal parts of ether and 95% alcohol and stained by Papānicolaous staining technique (Wachiel 1964, Winifed, 1959). The stained slides were analysed with respect to evidence of malignancy or dysplasic changes or inflammation. A total of 2300 women were screened. Whenever, abnormal smears were encountered, repeat smears were taken after correcting the vaginal or cervical infection. An attempt was made to follow the patients 3 months after delivery.

Results

Majority of the patients were in the age group of 21-30 years (67%) and very few of them were grand multiparous (5.4%). Small erosion was pre-

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sent in 236 women (69%) and erosion bleeding on touch in only 59 women. Most of the patients with erosion were in the age group of 21-30 years. However, erosion was evenly distributed in different age groups when compared with the number of patients examined. Table I shows the relationship between dysplasia and erosion. The incidence of mild dysplasia was 0.788% and moderate and severe dysplasia was 0.17% and 0.040% respectively. The total incidence of dysplasia was 1%. Dysplasia was encountered most commonly in patients having no erosion. Incidentally, unsuspected infections such as condyloma and chlamydia were encountered in 0.78% and 0.13% respectively. One of the 2 patients with chlamydial infection could be followed-up and there was no complication. Metaplasia, with metaplastic cells in clumps were seen in few patients. All of them were followed up by repeat smears and the finding were confirmed therein. Trichomoniasis with class II inflammation were seen in 29 patients and 15 followed up after treatment by repeat smear. The smears reverted back to normal in 9 cases. Tables II and III show the relationship between dysplasia and age. Most

TABLE I
Dysplasia and Erosion

Dysplasia	Erosion small	Erosion Big	Bleeding on touch	No Erosion	Total 6	% of Incidence
Mild Dysplasia— Class I	1	2	6	5	8	(0.78%)
Class II	—	1	1	9	10	
Moderate Dysplasia	—	—	—	4	4	(0.17%)
Severe Dysplasia	—	—	—	1	1	(0.04%)
Metaplasia	1	2	1	8	12	(0.52%)
Chlamydial Infection	—	1	—	2	3	(0.13%)
Condyloma Infection	4	—	—	14	18	(0.78%)
Fungal Infection	4	1	2	23	29	(1.26%)
Inflammation with Class I	17	9	5	67	98	(4.26%)
Trichomoniasis Class II	5	3	3	18	29	(1.26%)
Degenerative changes	1	—	—	4	5	(0.22%)

TABLE II
Associated Abnormalities

Associated Abnormality	Present No.	Abnormality No.	Kind of Abnormality
Severe Anaemia	146	14	Inflammation with Trichomonas, Fungal, Metaplasia, moderate dysplasia Condyloma infections
Leucoplakia	11	—	—
Vulval Warts	11	2	Mild-moderate dysplasia
Prolapse	14	1	Metaplasia
Threatened Abortion	19	—	—
Vaginal Cyst	2	—	—
Leaking	12	2	Trichomonas, condyloma infection with Metaplasia

TABLE III
Dysplasia and Age

Dysplasia		20	21-30	31-35	35-40	41-45	Total
Mild Dysplasia	Class I	3	5	6	—		8
	Class II	5	4	1	—	—	10
Moderate dysplasia		1	1	2	—	—	4
Severe dysplasia		—	1	—	—	—	1

of the patients with mild or moderate dysplasias was seen in patients having severe anaemia and one in patients having vulval warts.

Discussion

Pre-natal screening is a good opportunity for early detection of cervical carcinoma. The reasons being, almost all women attend the antenatal clinics. Multiparas, who form the 'high risk group' rarely attend gynac clinics because of home problems and the smears can be taken as a routine part of antenatal examination without causing undue anxiety to patients as special cancer detection centre would do. The incidence of cervical dysplasia detected in pregnancy by other authors vary from 3.5% (Bertini-Oliveria, (1983) to 12% (Murad, 1982). Tibles IV and V show the incidence of dysplasia and malignancy in screening cytology in general gynaecological and pregnant women. Our incidence of dysplasia in pregnancy was 1%. Photographs 1 and 2 show mild dysplasia, Photographs 3 and 4 show moderate dysplasia, photograph 5(a) shows metaplastic bridge cells. 5(b) cells showing metaplasia,

TABLE IV
Dysplasia in Gynaecological Patients

Authors	Carcinoma in-situ	Dysplasia
(1) Tweeddale	Slight over 1%	0.13-3.8%
(2) Shah M. J. & Shah K. A. (General Hosp. cases)	0.8%	14%
(3) Sahiar *et al* (1967)	5.8%	—
(4) Rao *et al* (1973)	4.05%	—
(5) Garud *et al* (1983)	0.38%	—
(6) Evan *et al*	1.12%	—

TABLE V
Dysplasia in Pregnancy

Authors	Mild	Mod	Severe	Ca-in-situ	Micro. inv.	Inv. on +ve	Total abnormality
(1) Bertini Oliveria *et al*	2.6			0.82%	0.08%	—	
(2) Jones *et al*	2.4%		0.5=		0.09%	—	
(3) Tweeddable		1.1%		0.25%			0.01%-0.14%
(4) Present Series	0.78%	0.17%	0.04%				

photograph 6 shows the degenerative changes, photograph 7 shows giant cell, photograph 8 shows pearl epithelium, photograph 9 shows Trichomonas infection, Photograph 10 show chlamydial infection, and photograph 11 shows the condyloma infection (Bertini-Oliveria *et al*, 1983; Tweedale and Dubilier, 1972; Evans *et al*, 1981; Nasi ell *et al*, 1983; Bmford *et al*, 1983).

Many authors have reported greater incidence of cervical dysplasia in the age group of 20-30 years (Bertini-Oliveria *et al*, 1983; Twedale and Dubilier, 1972; Evans et al, 1981; Nasiell et al, 1983; Bamford *et al*, 1983). In the series of Bertini Oliveria (1982) 50% of carcinoma in-situ also occurred in this age group ana abnormal colposcopy in their series was detected in approximately half the total number of cases with mild and moderate dysplasia but 93% of patients with severe dysplasia or carcinoma in-situ showed colposcopic abnormality. Most of the patients with dysplasia were in the age group of less than 30 years. Shah and Shah (1980) have noted that the incidence of dysplasia increased in parity 4 and above, but it did not rise much with the rise in parity to 7 and above. But there was a considerable rise in the carcinoma in-situ rate as the parity rose to 10 ind above. Most of the patients were in the parity group of para 1 to 4. We did not find any increased incidence of dysplasia in relation to erosion, small. big or bleeding on touch. Only 2 patients out of 261 patients having erosion hid cervical dysplasia (0.74%).

We have accidentally come across 3 cases of chlamydiasis and 18 cases of condylomatous infection. Wager *et al* (1980) found 9.3% incidence of chamydiasis in 486 ante-partum cervical cultures.

In conclusion, ante-natal cytological screening is an useful procedure to detect cases of cervical dysplasia so that the incidence of cervical carcinoma can be diminished. As explained by Murad (1982) Pap smear is as significant in pregnancy as in non-pregnant and the old teaching of invalidness of Pap smear in pregnancy due to cytological and histological changes is no longer accepted.

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See Figs. on Art Paper IV, V, VI