

A CRITICAL REVIEW OF CASES OF CERVICAL EROSION

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SUMMARY

One thousand and two hundred patients were selected from outdoor of Indira Gandhi Medical College, Nagpur, for study who showed cervical erosion during clinical examination, irrespective of age and symptomatology. Cytology, Colposcopy and colposcopically directed biopsy from suspected areas, were performed in one sitting and results were then correlated.

The incidence of preclinical carcinoma of cervix associated with cervical erosion was found to be 12.49%. The diagnostic accuracy obtained by cytology was 86.6% & by colposcopy alone was 92.33%. But by combining both methods the diagnostic accuracy was found to be 98.63%. The colposcopic findings and histopathology of colposcopically directed biopsies showed 88.23% correlation.

Introduction

The term cervical erosion encompasses a wide spectrum of conditions. Cervical erosion is a true epithelial defect that can be produced by trauma, by inflammation or by carcinoma. The naked eye evaluation of such cases is deceptive and it is easy to dispose of the intraepithelial cancer precursors as simple cases of erosion or inflammation.

The aim of present study is to study & correlate the clinical finding of cervical erosion with cytology, colposcopy and colposcopically directed biopsy. And to determine whether these combined techniques improve the accuracy of detection of cervical carcinoma.

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Material and methods

The present study has been carried out in the dept. of Obstetrics and Gynaecology, Indira Gandhi Medical College, and Mayo General Hospital, Nagpur, during the period from Feb. 1985 to April 1987.

1200 patients symptomatic or asymptomatic were selected from the out patient department in whom cervical erosion was detected during clinical examination irrespective of age.

Cervix was visualized by self retaining Cusco's speculum. Cervical scraping taken by Ayre's spatula and simple colposcopy performed which was followed by extended colposcopy after applying 2% acetic acid solution over portio

vaginalis. Findings were documented by symbolic graphic diagrams.

Schiller's test was then carried out and viewed through colposcope and iodine -ve areas were biopsied in 170 cases. Both cervical scrape smear and biopsy specimens were sent for cytology and histopathology. Results were then correlated and accuracy of each was assessed.

Observation

In this study group of 1200 cases the age of patients ranged between 20 and 60 years and the maximum incidence of dysplasia was found in the 4th decade of life (5.83%) and in those who were married before the age of 20 years (16.6%) and with parity 4 and above (5.33%)

On colposcopic examination of cervical erosion maximum patients i.e. 54.16% were found to be normal (ectopy), 23.33% showed cervicitis, 12.58% showed dysplasia, 1.66% showed overt carcinoma and in 8.34% colposcopy was unsatisfactory. The areas showing dysplasia and overt carcinoma showed 88.6% good correlation and 13.33% false +ve results. While in overt carcinoma there was 100% correlation.

On cytology 20.84% had normal smears, 65% inflammatory, 13.33% dysplastic and 0.83% frankly malignant. Cytology missed 80 cases of dysplasia giving 33.84% false -ve results while colposcopy over diagnosed 20 cases of chronic cervicitis as dysplasia giving 13.33% false +ve results. The cytological error was corrected by parallel colposcopic examination.

Table II

Showing diagnostic accuracy obtained by cytology, colposcopy alone and both methods.

Accuracy	Percentage
Obtained by cytology	86.60
Obtained by colposcopy	92.33
Obtained by cytology and colposcopy both	98.33

Discussion

Historically, cytology and colposcopy were considered competitive methods in early cancer detection. But later on it was recognised

TABLE I

Showing correlation between colposcopic findings and histopathological findings of biopsies taken from suspected areas.

Colposcopic Findings	No. of Cases	No. of Biopsy taken	Histopath Correlation obtained.	False Positive
Normal (Ectopy)	650(54.16%)	-	-	-
Cervicitis	280(23.33%)	-	-	-
Dysplasia	150(12.58%)	150(100%)	130(86.6%)	20 (13.33%)
Carcinoma-in-situ	0	-	-	-
Overt carcinoma	20(1.66%)	20(100%)	20(100%)	-
Unsatisfactory	100(8.34%)	-	-	-

that each method has its own limitation and strength and that both methods complement each other.

In this series of 1200 cases of cervical erosion we have found the incidence of carcinoma of cervix associated with cervical erosion which might have been missed with naked eye examination. We also evaluated the diagnostic accuracy of cytology, colposcopy and both methods applied simultaneously in the detection of cervical lesions.

The colposcopically abnormal findings were confirmed by histopathological findings of biopsy taken in 170 cases i.e. in 14.16% (1500 dysplastic and 20 frankly malignant). There was 88.23% correlation between colposcopic findings and histopathological findings of directed biopsy. Out of these 150 cases diagnosed as dysplastic on colposcopy, 20 were found to have chronic cervicitis.

TABLE IV

Frequency of Preclinical cases of carcinoma cervix in colposcopically directed biopsies by different authors.

Author	Frequency of Carcinoma cervix (%)
Held, 1954	- 2.8%
Limberg, 1956	- 9.8%
Navratil, 1958	- 10.8%
Bandi, 1985	- 6.0%
Present series	- 12.49%

In the present study, the diagnostic accuracy obtained by cytology alone is 86.6% and by colposcopy alone is 92.33%. But by combined application of both methods we were able to get a diagnostic accuracy of 98.63%, excluding unsatisfactory colposcopy cases which is comparable to the results obtained by other workers stated below.

TABLE III

Showing relationship between Cytology, Colposcopy and Cervical Biopsy, taken from suspected areas.

Cytological Grading				Colposcopic Grading				Biopsy Report				
Nor-mal	Infla-mma-tory	Dyspla-stic	Frankly malignant	Normal	Cervi-citis	Dyspl- asia	Carci- noma situ	Overt carci- noma	Unsat- isfac- tory	Chr. cervi- citis	Dys- plasia	Inva- sive carci- noma
2500	-	-	-	1600	30	30	-	-	30	-	30	-
-	780	-	-	440	240	50	-	-	50	20	30	-
-	-	160	-	60	-	70	-	10	20	-	70	10
-	-	-	10	-	-	-	-	10	-	-	-	10

TABLE V

The diagnostic accuracy obtained by either method and combining both of them by different authors.

Name of Author	Accuracy by cytological diagnosis	Accuracy by colposcopic diagnosis.	Accuracy by combined method
Doro et al, (1953)	95.4%	90.70%	98.3%
Navratil (1957)	79.0%	74.00%	97.5%
Navratil et al (1958)	88.5%	91.3%	98.3%
Limberg (1958)	97.0%	88.9%	99.3%
Tovell et al (1976)	77.80%	83.5%	96.4%
Present Series	86.6%	92.33%	98.33%

It is also found in our series that incidence of preclinical carcinoma of cervix is more in 4th decade of life and in para 4 & above which corresponds to the study of Bandi et al (1985).

The incidence of carcinoma of cervix is found to be more in women who got married before the age of 20 years i.e. 16.6% which shows that early coital activity is highly significant factor in the development of cancer of cervix. Our results are comparable with the results of Roy Choudhary (1975).

In our study, the colposcopy cytology correlation was to be in 80% which is comparable to the study of Saraiya and Lulla (1985), Bindi et al, (1985) and Abbot et al (1985).

In conclusion all cases of cervical erosion should be subjected to cytological and colposcopic examination to screen out intraepithelial lesions.

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