

CYTOPATHOLOGY OF UTERINE CERVIX USING THE BETHESADA SYSTEM IN 2800 SCREENED INDIVIDUALS

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SUMMARY

2800 females attending gynecology outdoor over a period of two and a half years were screened for cytopathology of uterine cervix by Pap. smear. The latest system of categorization of these smears was used for this purpose. 40.56% were between 30-40 yrs. of age and 48.11% showed changes to be within normal limits. Amongst those with descriptive diagnosis inflammation and infections had the maximum share. LGSIL were found in 13.18% individuals and frank carcinoma in 1.82% individuals. The Bethesda system thus proved to be completely adequate for standard categorization of cytopathology of uterine cervix.

INTRODUCTION

The "Pap" smear has achieved its greatest success in the prevention of carcinoma cervix through its use in mass screening programs. Papanicolou originally proposed five classes for reporting intra epithelial changes of the cervix. Class (I) was 'Normal', Class (II) indicated inflammation, repair or other benign changes. Class (III) was for doubtful diagnosis, Class (IV) suspicious of malignancy and Class (V) was invasive cancer. But this system soon proved inadequate as sophistication and

understanding of cytology increased. In 1973 a WHO Committee tried to define terms like dysplasia and Ca-in-situ but without much success (Riottton - 1973). Thus various attempts bordering hairsplitting exercises (Patter - 1988) were undertaken. As a result a latest more comprehensive and consensus based system was evolved termed as Bethesda system (National Cancer Institute Workshop - 1989). Though similar to one proposed to Richa (1973) it has included many subtle developments like HPV changes also and thus has been coined as a 'complete' system (Meisels - 1991).

We have utilised this system for classifying cytopathology reports of uterine cervix the results of which are being presented here

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MATERIALS AND METHODS

The present study was carried out in the department of Obstetrics and Gynecology, SSG Hospital and Medical College, Baroda over a period of two and a half years from January 1990 to June 1992. The subjects enrolled in this study attended our Gynec. outdoor and were randomly selected for cervical cytopathology screening.

The smear was taken from the cervix by an Ayre's spatula and fixed by standard method of fixation. It was then subjected to Pap staining method. Reports of cytopathology received were subjected to Bethesda system of classification. The results so obtained were analysed and discussed to draw valid conclusions.

RESULTS

During the study period, 2800 females were subjected to Pap smear screening method for studying their cervical cytopathology. Their age and parity distribution is as shown in table I.

40.57% of these females were 30-40 years age group. More than 50% were of parity 2 or more. As regards the phases of their lives,

1960 i.e. 59.28% were perimenopausal age group.

Their reasons for attending the gynec. outdoor are shown in table II.

Pain in lower abdomen, most of the times due to P.I.D. was the commonest presenting complaint. Leucorrhoea was the second most frequently encountered complaint. 6.79% subjects who were on a routine follow up of IUCD did not have any complaints. Many

Table II
Presenting Complaints

Complaints	No.	%
Pain in lower abd.	1007	35.96
Leucorrhoea	893	31.89
Menstrual Irreg.	665	23.75
Follow up of IUCD (No complaints)	190	6.79
Prolapse	114	4.07
Leucoplakia	38	1.36

Table I

Age / Parity

Age in yrs.	No.	%
Less than 30	719	25.69
30 to 40	1136	40.57
40 to 50	605	21.60
50 and above	340	12.15
Parity		
Less than 2	640	22.86
2 to 4	1520	54.28
More than 4	640	22.86

Table III

Cytopathology Report

Report	No.	%
Statement on specimen adequacy		
- Satisfactory for interpretation	2768	98.86
- Unsatisfactory	32	1.14
General Categorization		
- Within normal limits	1347	48.11
- Others (Descriptive Diagnosis)	1453	51.89

subjects had more than one complaint and thus, the total number of patients exceeds 2800 in this table.

Tables III, IV and V are the categorisation as per Bethesda system of the cytopathology reports of the women screened.

32(1.14%) slides showed unsatisfactory specimen for reporting. These subjects were screened again and cytopathology repeated. Thus reports of all 2800 were available. of these 2800-48.11% (1347) were within normal limits and thus showed no pathology. Those who did show pathology were subjected to the categorisations of descriptive diagnosis.

This table shows cytopathology of non epithelial cell type. 401(14.32%) subjects showed evidence of inflammation and 85(3.04%) showed changes due to mechanical device, in this case in IUCD.

Epithelial cell abnormalities only of squamous epithelium were found. 369(13.18%) were metaplastic changes. These are mature cell metaplasia and 51(1.82%) showed frank squamous carcinoma. Terminologies like

Table IV

Descriptive Diagnosis		
Diagnosis	No.	%
Infection		
- Fungal	47	1.68
- Bacterial	134	4.79
- Tricho	243	8.67
Reactive & Reparative changes		
- Inflammation	401	14.32
Miscellaneous		
- Effect of mechanical device (I.U.C.D.)	85	3.04

Table V

Descriptive Diagnosis		
Diagnosis	No.	%
Epithelial cell abnormalities		
- Squamous Cell		
- Atypical (of undetermined significance)	18	0.64
- Metaplastic	369	13.18
- LGSIL	92	3.29
- HGSIL	13	0.46
- Frank squamous carcinoma	51	1.82
Glandular cells	00	0.00
Nonepithelial Malignant neoplasm	00	0.00

dyskariosis and mild dysplasia being obsolete for this grouping system, these are termed a Low Grade Squamous Intraepithelial Lesion (L.G.S.I.L.) which was found in 92(3.29%) of the subjects. High grade Squamous Intraepithelial Lesions (HGSIL) which encompass moderate dysplasias and beyond upto less than frank squamous cell carcinoma were found in 13(0.46%) subjects.

None of the females showed glandular or non epithelial cell malignant neoplasia.

DISCUSSION

Informative results emerge from the study. This was a study carried out in Gynec. outpatients. Obviously therefore patients who are to visit are bound to have some presenting complaints and reports of cytopathology being within normal limits are bound to be less (48.11%) than those with some pathology (51.89%).

As regards the adequacy of specimen must indeed be noted that as per the Bethe

system it is mandatory to have this component. Of those 32 patients who were reported to have satisfactory specimen on first instance were rejected to rescreening. Thus, at the end there are in actual terms, no patients with unsatisfactory sample report.

Complaints like pain in lower quadrants of the abdomen clinically suggested infection. However on examining the cytopathology, only 4 of total 1007 showed presence of infection. Trichomoniasis was the most common of these. However patients showing non infective, regenerative and reparative changes due to inflammation also presented at times with pain in lower abdomen.

Presence of leucorrhoea and menstrual irregularities warranted a close examination for epithelial cell abnormalities. Around 550 patients showed such abnormalities. 190 (6.70%) subjects did not have any complaints. They were on a regular follow up as IUCD was fitted in them. It is likely that symptomatic patients may have been on IUCD follow up. But when they were symptomatic, they were analysed along with those with similar symptoms, as well.

Presence of trichomoniasis in 8.67% slides is higher than western figures which vary between 27.3% (Meisels - 1977). But the same University of Chicago Clinics in 1987 was 15% (Bibbo - 1987). Candida were the most frequently encountered fungi and were identified by their budding and pseudomycelia (Wikson - 1975, Heller C. J. - 1971). Upto 10% women screened have had their smears displaying mixed or coccoid bacterial as per reports (Bibbo - 1988, Barns - 1975). However same was only 4.79% in present study. The flora was predominantly of "Mixed" type. Mixed flora consists of cocci and rods, and may be found in absence of any sign of inflammation.

Inflammation in absence of a discernible infection as reported loosely at times as "Chronic cervicitis" was present in 401 (14.32%) cases.

Many changes due to IUCD have been described (Engineer - 1981, Gupta - 1982, Kobayashi - 1982). Some of these were found in the present series also. Typically clusters of glandular cells could be seen and infrequently cytoplasmic vacuolisation was seen. Granulocytes were seen within the vacuoles.

Tough squamous metaplasia has no diagnostic significance (Meisels - 1991). Its presence in 13.18% individuals only suggested the adequacy of sample. These could admittedly be included in the category of "within Normal limits".

Terms like LGSIL (low grade squamous intra epithelial lesion) and HGSIL (High grade squamous intraepithelial lesions) are new in this system. They encompass the spectrum of terms currently used for squamous cell precursors to C.I.N. and thus terms like 'dyskariosis' or "Keratinising atypia" now no longer exist in the Bethesda system texicon. 4.75% subjects had these lesions, whereas 1.82% had frank squamous cell carcinoma.

CONCLUSIONS

The Bethesda system for categorization of cytopathology of uterine cervix has been employed here. The results indicate that infections and inflammations were the predominant diagnosis. IUCD had its effects due to its mechanical presence. LGSIL and HGSIL are more standardised ways of categorizing intraepithelial lesions. 1.82% subjects amongst 2800 screened had frank squamous cell carcinoma picked up only from cytopathology study.

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CLINICOPATHOLOGICAL STUDY OF EARLY OVARIAN TUMOURS IN GOVA

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SUMMARY

343 cases of ovarian tumours were studied for the 18 years between 1975-1993 at the Goa Medical College. The highest incidence occurred in the reproductive age group of 15 to 49 years. The commonest benign tumours were the Cystadenomas (both serous and mucinous) with 187 cases, followed by benign Cystic Teratoma with 23 cases. In the malignant variety the commonest tumours were again the cystadenocarcinomas with 23 cases. Of the 23 cases studied, 22 were benign, 22 malignant and 1 of borderline malignancy. The commonest presenting features were mass of abdomen, slight weight loss or associated with other symptoms most commonly pain. The endometrium was also studied and correlated.

ment of Pathology, Goa Medical College. The gross and microscopic features of each tumour, clinical course, the age, various signs and symptoms, associated investigations, aetiology or histological effects and signs of metastasis in malignant tumours were noted. A comparative analysis of each tumour was carefully done and notes put from retrospective cases and studied microscopically. The tumours were classified as per World Health Organisation Classification of Ovarian Tumours.

RESULTS

Of the 343 cases studied most occurred between 20 to 29 years, peak incidence being

INTRODUCTION

The present study was undertaken to review and study the common morphological and histological types of ovarian tumours, their various clinical presentations and relative incidence in this part of our country and also to correlate the various tumours with the anamnestical picture wherever possible.

MATERIALS AND METHODS

A total of 343 cases of ovarian tumours were studied from 1975 to 1993 in the Depart-