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COLPOSCOPIC EVALUATION OF CERVIX IN PATIENTS WITH FEATURES OF CERVICITIS OR ABNORMAL PAP SMEAR

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ABSTRACT

Objective: The aim of the study is to evaluate colposcopic changes in patients presenting with cervicitis or with abnormal Pap smear. **Method**: The study was conducted on 50 outdoor patients at North Eastern Indira Gandhi Regional institute of Health and Medical Sciences, between January 2012 and April 2013. In all these patients relevant history including that of discharge or bleeding per vaginum and post coital bleed was taken. Naked eye examination, Pap smear and colposcopy was done in such patients. All the collected data was subsequently analyzed. **Results**: Cervicitis is most common in reproductive age group of 26-45[78%]. Parous women with 2 or more children were most commonly affected[88%]. Most of the patients presented with vaginal discharge. 72% 0f patients had unhealthy looking cervix on examination. Pap smear and colposcopy showed inflammation as cause of cervicitis in 80% 0f patients. **Conclusion**: For every abnormal looking cervix, where Pap smear showed it to be inflammatory or preinvasive malignant lesion , colposcopy and/or with biopsy as required showed them to be consistent with Pap smear. So colposcopy may be reserved for conditions where normal looking cervix has Pap reported as preinvasivasivelesion or an abnormal looking cervix is reported as normal pap smear. Thus in conflicting situations, for additional evaluation of cervix, colposcopy may be useful.

KEYWORDS; Colposcopic, Vaginum, Preinvasive, Parous.

INTRODUCTION

Cervical pathology may be broadly classified into inflammatory, preinvasive malignant lesions and malignant lesions. Inflammation of cervix, cervical intraepithelial neoplasia [CIN] and cancer cervix may at times have similar clinical presentation. Patients may present with symptoms of vaginal discharge, menstrual irregularities and pain abdomen either alone or in combination. On examination an unhealthy, inflamed cervix may be seen. Naked eye examination may reveal congested, reddish unhealthy cervix in all the above conditions. Pap smear may help in differentiating the above lesions. Errors may occur in pap smear reporting in the form of under or over interpretation of cervical pathologies. Colposcopy can be a reliable tool for evaluating the cervix, especially in conflicting results, to make an accurate diagnosis

High risk HPV testing is a method which has been incorporated into the evaluation of patients with features of cervicitis for the purpose of risk prediction for the development of cancer cervix than for the diagnosis of CIN or cervicitis and was not a part of our study. Also, most HPV infections are asymptomatic and transient and more than 90% of new infections resolve within 2 years.[1]

AIMS

The aims of the study were:

1. To see colposcopic changes in patients presenting with complaints of cervicitis such as vaginal discharge with or without pain abdomen or irregular bleeding per vaginum or abnormal cervical cytology.
2. To correlate cytological and colposcopic findings in such patients

MATERIALS AND METHOD

Study Design-Prospective Observational study
Number of patients-50
Duration of study period-January2012 to April 2013
Inclusion Criteria:
1. History of post coital bleeding per vaginum [BPV]
2. History of irregular BPV
3. Leucorrhoea
4. Unhealthy cervix on examination
5. Condyloma in vagina and vulva
6. Asymptomatic with abnormal cervical cytology.

Exclusion Criteria:
1. Diagnosed case of cancer cervix
2. Pregnant women

METHOD

The study was approved by ethical committee, North Eastern Indira Gandhi Regional institute of Health and Medical Sciences. In each patient a detailed history and thorough clinical examination was undertaken.

Further evaluation with Pap smear and colposcopy was carried out.

Colposcopic findings were described as per Burke and Coworker Classification (Table 1).

Table 1: The Burke and Coworker Grading

Table 1: The Burke and Coworker Grading Grade	Surface	Margin	Color	Time	Vessels	Pathology
I	Flat	Indistinct	Normal or slightly white	Appears slowly, remains for short time, disappears rapidly	Fine, with normal ICD	SPI, inflammation, immature, metaplasia, pregnancy, regeneration, repair.
II	Flat	Distinct	Whiter	Average time to appear, remains for several minutes, disappears with average speed	Punctuations, mosaic with slightly increased ICD	SPI, CIN1 and CIN2
III	Roused	Sharp	Whitest	Appears rapidly, stays a long time, disappears slowly	Coarse , punctuations and mosaic increased ICD, atypical vessels	CIN3 and cancer

OBSERVATIONS

The duration of the study is for one and half years starting from January 2012, with a minimum of 50 patients to be studied. The study got completed in April 2013.

Age

We have found that maximum number of patients with cervicitis were in reproductive age group of 26 to 45 years (Table 2). This may be possibly due to the fact that in this age group there is increased coital activity, thereby leading to increased chances of infection.

Table 2: Age distribution of study population

Age Group	No. of patients (n=50)	Percentage (%)
18-25	6	12
26-35	21	42
36-45	18	36
>45	5	10

Parity

Most of the patients presenting with cervicitis had 2 to 5 children (Table 3). Only one patient was nulligravida and it was a patient of primary infertility who was married for 11 years. Childbirth may predispose to cervicitis due to increase in handling or intervention.

Table 3: Distribution among parity

Parity	Number of patients (n=50)	Percentage (%)
P0	1	2
P1	5	10
P2-5	41	82
P>5	3	6

Symptoms

Most of the patients with cervicitis presented with only vaginal discharge. 22% of patients presented with only pain lower abdomen but on examination were found to have cervicitis. 2 patients were asymptomatic but on examination were found to have cervicitis, hence the importance of screening test for cervical Intraepithelial Neoplasia and Carcinoma Cervix in asymptomatic patients. Some of them presented with vaginal discharge with irregular menstrual bleeding or pain in abdomen (Table 4).

Table 4: Spectrum of symptoms in the study population

Complaints	Number (n=50)	Percentage(%)
Vaginal discharge	20	40
Irregular bleeding pre vaginum	3	6
Post coital bleeding per vaginum	1	2
Pain lower abdomen	11	22
Vaginal discharge with pain	8	16
Vaginal discharge with pain with menstrual irregularity	5	10
No complaints	2	4

Examination

On examination of patients presenting with clinical features of cervicitis, 28% of patient had normal cervices whereas 72% had inflamed unhealthy or erosion on cervix (Table 5). In Pap smear, 80% of patients had inflammatory smear. 2.0% of patients had ASCUS (Atypical Squamous Cells of Unknown Significance) and 2.0% LSIL (Low grade Squamous Intraepithelial Lesion). 4.0% patients have actinomycosis and 12% bacterial vaginosis as Pap smear results (Table6).

Table 5: Clnical examination of the Cervix

Cervical Examination	Number (n=50)	Percentage (%)
Normal cervix	14	28
Abnormal cervix (Inflamed unhealthy erosion)	36	72

Table 6: Spectrum of Pap Smear findings

Pap Smear	Number (n=50)	Percentage (%)
Inflammatory	40	80
ASCUS	1	2
LSIL	1	2
HSIL	0	0
Actnomycosis	2	4
Bacterial vaginosis	6	12

Satisfactory colposcopy where the transitional zone was adequately visualized was seen in 96% patients. 4.0% had unsatisfactory colposcopy (Table 7).

Table 7: Gross Colposcopic findings

Colposcopy	Number (n=50)	Percentage(%)
Satisfactory	48	96
Unsatisfactory	2	4

Grading system of Burke and Coworker was used for documentation of colposcopic findings. 20% patients had Normal Colposcopy findings. Maximum number of patients (52.0%) had Grade I results suggesting of inflammation, immature metaplasia, regeneration & repair (Table 8).

Table 8: Grading of Colposcopic findings

Burke Grading	Number (n=50)	Percentage(%)
Normal	10	20
Grade I	26	52
Grade II	14	28
Grade III	0	0

Cervical Biopsy

Cervical Biopsy was taken in 7 patients who had extremely unhealthy looking cervix (Table 9).

Table 9: Cervical biopsy results

Cervical Biopsy	Number (n=7)	Percentage(%)
Chr. Cervicitis	2	28.5
Mild dysplasia	2	28.5
Metaplasia	3	43

OTHER OBSERVATIONS

Contraceptions

Five patients presenting with features of cervicitis had Cu-T inserted. This is consistent with the fact that Cu-T may predispose to PID and Cervical dysplasia

DISCUSSION

The Pap smear and colposcopy findings are mostly consistent in our study. The study by Melinte-Popescu.[2] et al showed fair agreement between Pap smear and colposcopic biopsy. However they have also suggested that incorporation of HPV testing and into the present pap screening program has the potential to make screening for cervical cancer more effective. In our study, apart from cytological abnormalities of cervical tissue, Pap smear was instrumental in diagnosing actinomyces in 4% patients and bacterial vaginosis in 12% patients. In a study by Guducu N et al.[3] 33.5%, 30.4% 43.3% and o% of patients had bacterial vaginosis, trichomonas vaginalis, Candida and actinomyces respectively diagnosed on pap smear and treated clinically. Compared to the microbiological test results, Pap smear is not sensitive enough for screening of bacterial vaginosis, however, because of its high specificity, it may be an adequate diagnostic criteria when it is positive.[4] Karam et al.[5] have found pap smear sensitivity and specificity were 59.4% and 83.3% for bacterial vaginosis and have suggested including bacterial vaginosis assessment as a standard component of pap smear warrants consideration.

In our study 5 patients [10%] presenting with features of cervicitis had Cu-T in situ. This is consistent with the fact that Cu-T may predispose to cervicitis, dysplasia and PID. Guducu N[3] et al have also found that patients using an intrauterine device for contraception had a statistically significantly increased rate of trichomonas vaginalis and Candida infection when compared to women using other contraceptive methods or those who were not using any contraception.

We found that 28% patients had normal cervices on examination, but 72% had unhealthy cervices on naked eye examination. In a study to assess the reliability of unaided eye examination as a screening test for cervical lesion in a developing country set up, they have found that sensitivity of unaided naked examination [UNEE] is much better than that of pap smear [80% vs. 60%] but less than that of colposcopy [86.7%].However the specificity of UNEE is lower than that of pap smear and better than that of colposcopy.[6]

A biopsy was taken in patients with very unhealthy looking cervix which bleeds to touch, so that a histopathological diagnosis is available, which is more reliable than Pap smear and colposcopy. In our study, biopsy showed chronic cervicitis in 4% patients, mild dysplasia in 4% and metaplasia in 8% patients. In a study to evaluate if we perform too many procedures for cervical dysplasia in young women,Nadim B, found out that in a retrospective cohort analysis of women with colposcopically directed biopsy of HSIL[CIN2 or 3], were reported to be CIN 1 or no dysplasia when subjected to histological excisional biopsy in women less than 25 years of age.[7] Milenkovic V[8] et al have conducted a study to evaluate the reliability and relationship of colposcopic, cytological and histopathological findings in the diagnostic process. In their study cytological analysis is more reliable than colposcopic examination. A final decision on therapy has to be made based on histopathological findings on biopsy as it can give the ultimate reliable diagnosis of cervical changes.

During our study, we came across patients who had abnormalities reported on Pap smear and/or colposcopy, which were done in corporate hospitals. On naked eye examination, Pap smear and colposcopy these patients were found to have no evidence of cervicitis or dysplasia. Over diagnosis and overtreatment for commercial reasons seem to take place in few private health sectors and should be strongly discouraged.

Whether colposcopy is needed in every patient with abnormal looking cervix or abnormal pap smear needs to be assessed on the strength of suspicion for preinvasive malignant lesion and response of cervix to the treatment given based on examination and pap smear finding.

SUMMARY

After the study we may conclude that cervicitis is most common in the reproductive age group of 26-45 years. Parous women with 2 or more children were most commonly affected. Most of the patients present with vaginal discharge. Few patients may be initially asymptomatic also; maximum patients show cervical erosion or unhealthy cervix on examination. The results of Pap smear and colposcopy were consistent, with most of the patients having simple inflammation as the cause of symptoms of cervicitis or unhealthy cervix.

CONCLUSION

The Pap smear and Colposcopy findings are mostly consistent in our study. Colposcopy may be reserved only as a diagnostic modality for patients with

conflicting findings on cervical examination and Pap smear results or for taking colposcopic directed biopsy in those patients with generalized unhealthy Cervix, where a particular area cannot be identified for taking biopsy on naked eye examination.

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