Volume-3, Issue-9, Sept-2014 • ISSN No 2277 - 8160

Research Paper | Medical Science

Colposcopy in Inflammatory PAP SMEARS

Dr Aakanksha agarwal	M.S Resident , Department of Obs & Gyane, NIMS Medical College & Hospital, NIMS University, Jaipur
Dr Beena Bhatnagar	HOD and professor, Department of Obs & Gyane, NIMS Medical College & Hospital, NIMS University, Jaipur
Dr Priyanka Suhag	DNB Resident ,Department of Obs & Gyane, NIMS Medical College & Hospital, NIMS University, Jaipur

ABSTRACT

INTRODUCTION

Cervical is the second most common cancer in the world and the leading cause of death. Frequency and mortatilty are significantly reduced by screening through cytological Papanicolau test.However PAP test has low sensitivity and a high negative rate of 9-40%. Epithelial abnormalities on PAP test can be managed according to ACCP guidelines. However for management of inflammatory smears there are no such algorithms available. The incidence of inflammatory PAP smears is very high 14-19%. and subjecting each patient to colposcopy and HPV DNA testing might become costly. This study was done to evaluate inflammatory PAP smears with colposcopy and directed biopsy to find out any premalignant changes in the cervix and whether colposcopy should be done to help triage these women.

MATERIAL AND METHOD

100 women were screened at NIMS Hospital with PAP smear. However only those women who had inflammatory smears were subjected to colposcopy and directed biopsies.

RESULT

Out of 91 patients , 28 women (30%) had normal colposcopy,and 63 women(70%) had abnormal colposcopy of which 6.5% had polyp, 15.38% had CIN1, 3.29% had CIN 2, 3.29% had CIN 3 and 1.09% had invasive cancer.

CONCLUSION

Nearly 70% women had abnormal colposcopy with PAP smear showing inflammatory smear. Hence a large no of women with abnormal colposcopy and CIN (around 10%) would be missed if inflammatory PAP smears are not evaluated further.

KEYWORDS : Coploscopy, Inflammatory Pap smear,CIN

INTRODUCTION

Cervical is the second most common cancer in the world and the leading cause of death. Frequency and mortatilty are significantly reduced by screening through cytological Papanicolau test.However PAP test has low sensitivity and a high negative rate of 9-40%.[1,2,3]Epithelial abnormalities on PAP test can be managed according to ACCP guidelines. However for management of inflammatory smears there are no such algorithms available. The incidence of inflammatory PAP smears is very high 14-19%.[4,5,6,7] and subjecting each patient to colposcopy and HPV DNA testing might become costly. This study was done to evaluate inflammatory PAP smears with colposcopy and directed biopsy to find out any premalignant changes in the cervix and whether colposcopy should be done to help triage these women.

MATERIAL AND METHOD

The study was conducted at NIMS Hospital and Medical College, a tertiary level teaching hospital after obtaining clearance from the Ethical Committee of the Institution.100 women presenting with symptoms like discharge per vaginum, pain in lower abdomen, lower backache, pruritis vulvae or vagina were enrolled. Women who were pregnant or postmenopausal, with proven CIN or obvious cervical growth, IUCD users, with diabetes mellitus, and with multiple sexual partners were excluded from the study. Informed consent was taken from all women. After a detailed history and general physical examination, a detailed gynecological examination was carried out in all. This included examination of the breast, local examination of vulva, per speculum examination with Pap smear, and per vaginum examination. Women with inflammatory Pap smear were then included in the study . They were then subjected to colposcopy .The presence of any acetowhite or iodine negative areas was noted and classified according to colposcopic terminology by IFCPC 8 [Table 1]. The patients with suspicious lesions on colposcopy were then subjected to cervical biopsy from these abnormal areas along with endocervical brush cytology and endocervical curettage. The biopsy specimens were fixed in 10% formalin and sent for histopathological evaluation. The results were then interpreted. The statistical analysis was done using Student's *t*-test.

Colposcopic evaluation by IFCPC table 1

I	Normal colposcopic findings
	Orignal squamous epithelium
	Columnar epithelium
	Transformation zone
II	Abnormal colposcopic findings
	Flat acetowhite epithelium
	Dense acetowhite epithelium
	Fine mosaic
	Coarse mosaic
	Fine punctation
	Coarse punctation
	Iodine partial positivity
	Iodine negativity
	Atypical vessels
III	Colposcopic features suggestive of invasive cancer
IV	Unsatisfactory colposcopy
	Squamocolumnar junction not visible
	Severe inflammation, severe atrophy, trauma
	Cervix not visible

V	Miscellaneous findings
	Condylimata
	Keratosis
	Erosion
	Inflammation
	Atrophy
	Deciduosis
	Polyps

RESULT

one hundred women were recruited from the OPD in our hospital. Out of 100 women , 91 women (91%) had inflammatory smear. the mean age of the women with inflammatory Pap smear was 37.99 ± 7.92 years. The mean age at onset of sexual activity was 16.98 ± 1.48 years. Out of 91 patients , 28 women (30%) had normal colposcopy,and 63 women(70%) had abnormal colposcopy of which 6.5% had polyp, 15.38% had CIN1, 3.29% had CIN 2, 3.29% had CIN 3 and 1.09% had invasive cancer. No tissue was identified in the endocervical curettings in any patient and the endo-cervical brush cytology showed only inflammation. On correlating the histopathology reports with the colposcopic findings, it was found that the women with chronic cervicitis had grade I-II acetowhite changes and fine mosaic and punctation pattern, while the patients with CIN had grade II-III acetowhite change with coarse punctation.

DISCUSSION

Inflammation on Pap smear is a very common finding. Its prevalence in various Indian studies is reported to vary between 70% and 80.5%. [6,9] In our study the prevelance is 91%.

The mean age of the women with inflammatory Pap smear was 37.99 ± 7.92 years. The mean age of women with CIN in our study was 41 ± 7.86 years (*P* =0.1188).

The mean age at onset of sexual activity in inflammatory pap smear was 16.98 ± 1.48 years where as the mean age of onset of sexual activity in women with CIN in our study was 16.57±1.47 years(p=0.2544).

The mean parity was 3.167 ± 0.974 and 3.142± 1.014, respectively (*P* =0.9164).

In our study out of 91 with inflammatory pap smear, 21.96 % had CIN and 1.09 % had invasive cancer. Various studies have found the possibility of CIN with a report of inflammatory smear to range from 18% to 35%. [4,5]

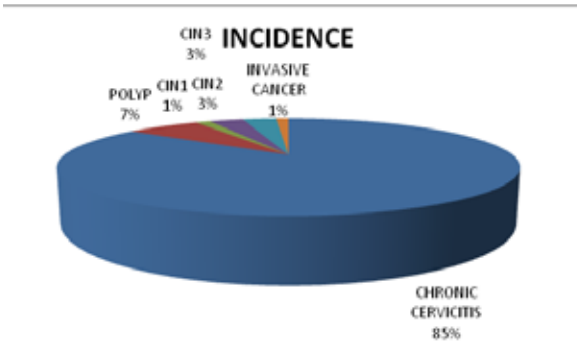
According to various studies, ASCUS on Pap smear has a 10%-20% chance of harboring CIN. [10,11] This is the reason why we triage women with ASCUS on Pap smear with either repeat cytology, HPV DNA testing, or colposcopy. [12] Our study has shown that 7.2% of women with inflammation on Pap smear could be harboring CIN. Hence, all women with inflammation on Pap smear should be subjected to further evaluation. HPV DNA testing can be an alternative to colposcopy; however, the use of HPV DNA testing to triage women with inflammatory pap smears has not been recommended. Further studies are required to establish the cost effectiveness of HPV DNA testing in triage of women with inflammatory pap smear.

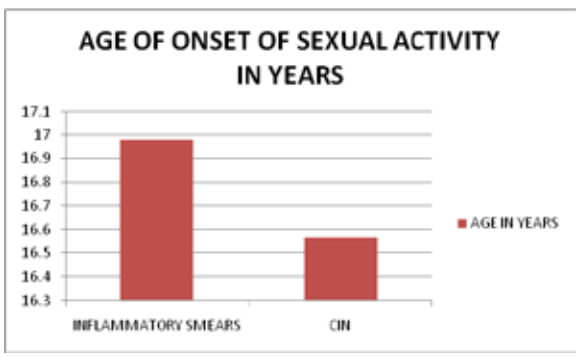
In our study, we found a 21.96 % incidence of CIN in women with inflammatory pap smear. The incidence of CIN and invasive carcinoma in women with persistent inflammatory pap smears over just 2 weeks was found to be 20.6% and 0.7%, respectively, in a study by Dasari *et al*. [13] Hence, by waiting for a longer period of time before repeating the pap smear may lead to a delay in diagnosis of CIN in a high percentage of cases.

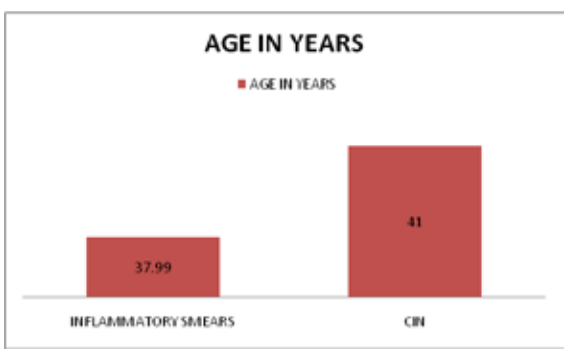
To conclude, one must not see a report of inflammation on Pap smear in isolation and ignore it as being absolutely insignificant. If it persists in any patient then we must consider evaluating the patient further by colposcopy.

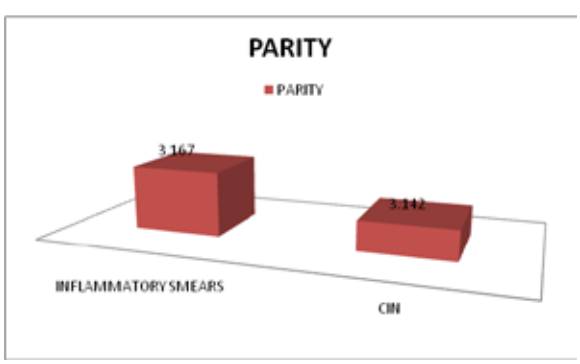
CONCLUSION

Nearly 70% women had abnormal colposcopy with PAP smear showing inflammatory smear. Hence a large no of women with abnormal colposcopy and CIN (around 10%) would be missed if inflammatory PAP smears are not evaluated further.









REFERENCES

DiBonito L, Falconieri G, Tomasic G, Colautti I, Bonifacio D, Dudine S. Cervical cytopathology: An evaluation of its accuracy based on cytohistologic comparison. Cancer 1993;72:3002-6. | Wilkinson EJ. Paponicolou smear and screening for cervical neoplasia. Obstet Gynecol 1990;35:817-25. | Gay JD, Donaldson LD, Goellner JR. False negative result in cervical cytological studies. Acta Cytol 1985;29:1043-6. | | Seçkin NC, Turhan NO, Ozmen S, Ersan F, Avºar F, Ustün H. Routine colposcopic evaluation of patients with persistent inflammatory cellular changes on Pap smear. Int J Gynaecol Obstet 1997;59:25-9. | | McLachlan N, Patwardhan JR, Ayer B, Pacey NF. Management of suboptimal cytological smears. Acta Cytol 1994;38:531-6. | | Parashari A, Singh V, Gupta MM, Satyanarayana L, Chattopadhya D, Sodhani P, et al. Significance of inflammatory cervical smears. APMIS 1995;103:273-8. | | Eckert LO, Koutsky LA, Kiviat NB, Krone MR, Stevens CE, Eschenbach DA. The inflammatory Papnicolaou smear: What does it mean? Obstet Gynecol 1995;86:360-6. | | 8. Walker P, Dexeus S, De Palo G, Barrasso R, Campion M, Girardi F, et al. International terminology of colposcopy: An updated report from the International Federation for Cervical Pathology and Colposcopy. Obstet Gynecol 2003;101:175-7. | Mali BN, Joshi JU, Bhave GG, Wagle UD. Cervical cytology in prostitutes of Bombay (India). Genitourin Med 1992;68:62-3. | | 10. Wright TC, Sun XW, Luolos J. Comparison of management algorithms for the evaluation of women with low grade cytologic abnormalities Obstet Gynecol 1995; 85:202-10 | | Lonky NM, Navarre GL, Saunders S, Sadeghi M, Wolde-Tsadik G. Low-grade Papanicolaou smears and the Bethesda system: A prospective cytohistopathologic analysis. Obstet Gynecol 1995;85:716-20. | | Wright TC, Massad LM, Dunton CJ, Spitzer M, Wilkinson EJ, Solomon D, et al. 2006 consensus guidelines for the management of women with abnormal cervical cancer screening tests. Am J Obstet Gynecol 2007;197:346-55. | Dasari P, Rajathi S, Kumar SV. Colposcopic evaluation of persistent inflammatory Pap smear: A prospective analytical study. Cytojournal 2010;7:16 |