Clinical profile of women with post coital bleeding

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Abstract

Background: Post-coital bleeding increases the risk of serious pathology in women.

Method: This prospective study was carried out in 75 women attending the gynaecology OPD with complaints of post coital bleeding and 75 women with no history of post coital bleeding of 30-60 years age group. They were all screened by Pap smear and followed by a detailed colposcopic examination. Biopsy was taken in colposcopy positive patients and sent for histopathological examination. The frequency of pre invasive and early cervical cancer in both groups were compared.

Result: On histopathological examination cervical intraepithelial neoplasm (CIN) 1 was found in 14.6% of women with post-coital bleeding and it was present in 6.6 % cases of control group ($p < 0.03$). High grade CIN lesions (CIN 2, 3) were present in 10.7% of women with post-coital bleeding vs. 1.3% in controls ($p < 0.001$). No invasive cancer was detected in any group.

Conclusion: Invasive cancer is rare in women with post-coital bleeding. Cervical intra-epithelial neoplasia is associated with post-coital bleeding.

Keywords: Post coital bleeding, Screening, Colposcopic direct biopsy cervical intraepithelial neoplasia.

Introduction

Post-coital Bleeding (PCB) is described as bleeding which occurs during or immediately after intercourse and at a non-menses time. It is a relatively recurrent symptom and multi-factorial in women.(1) The point prevalence ranges from 0.7 to 9.0% with one report indicating that the annual cumulative incidence is 6% among menstruating women.(2)

Post-coital bleeding mainly comes from surface lesions of the genital tract to include cervical polyps, cervicitis, ectropion, cervical intra-epithelial lesion (CIN), or cervical cancer.(2) The most serious cause of post-coital bleeding is cervical cancer. About 11 percent of women with cervical cancer present with post-coital bleeding (range 0.7 to 39 percent).(2,3)

There is a high prevalence, incidence, and spontaneous rate of resolution of inter-menstrual and post-coital bleeding in naturally menstruating women during the peri-menopausal years. The association of these symptoms with malignancy is weak; however, many of these women are referred to colposcopy clinics.(2) The aim of the study was to study the clinical profile of women of reproductive age attending gynaecological OPD with post coital bleeding and to assess the relation of post coital bleeding and significant cervical pathology and compare it with no history of post-coital bleeding.

Material and Methods

This prospective study was conducted in Department of Obstetrics and Gynaecology, Santosh Medical College, Ghaziabad from January 2016 to November 2016. The study included 75 patients who attended the gynaecology outdoor presenting with post-coital bleeding and a control group of 75 women without complains in the age group of 30-60 years. The exclusion criteria were pregnancy, pre-invasive/invasive cervical lesions diagnosed before admission, previous total hysterectomy, and previous ablative or excisional treatment modalities of cervix.

The study was approved by the ethics institutional Review Board of Santosh University and informed consent was obtained from the participants.

After a detailed history and clinical examination all women were subjected to cytological study by pap smear and followed by a detailed colposcopic examination. Biopsy was taken in colposcopy positive patients and sent for histo-pathological examination.

Statistical Methods: For data description, we used frequency (percent), mean ± SD, Median and Range. The study and control groups were compared overall and to evaluate the difference between groups, we used t-test, Chi-Square and Fisher exact test.

Results

The mean age of the women with post coital bleeding was 38.3±7.54 years and 37.9 ±7.42 years in the control group. All our cases were sexually active. Table 1 shows the demographic findings in 150 cases.

Table 1: Demographic Profile

Characteristics	Women with PCB (n= 75)	Controls (n= 75)
Mean age in years ± SD	38.3±7.54	37.9±7.42
Mean parity	2.9	3.1
Age at first coitus	17.5 years	19.5

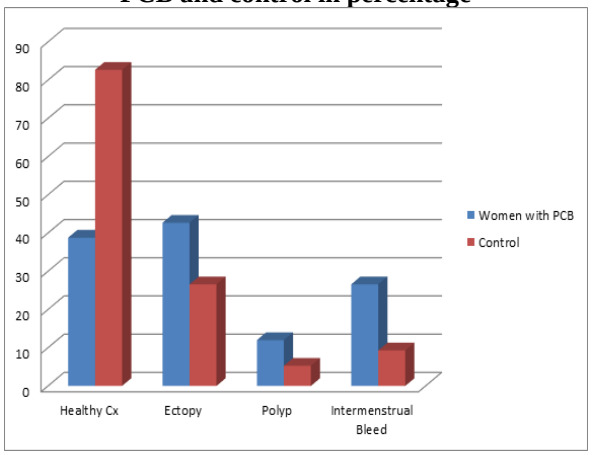
On per-speculum examination of women with PCB, majority of patients (42.7%) had ectopy of cervix, 38.8% had normal cervix and 12% had cervical polyp.

Besides PCB, 64% of these women had menstrual irregularities and 26.6% had inter-menstrual irregularities also (Table 2 and Histogram 1).

Table 2: Distribution of Cases According to Per-Speculum Examination (Findings on P/S Examination) and menstrual irregularities

Clinical signs	Women with PCB n(%)	Controls n (%)	P value
Healthy cervix	29 (38.7%)	62(82.7%)	0.0001
Ectopy	32 (42.7%)	20 (26.6%)	0.05
Polyp	14 (12 %)	4 (5.3 %)	0.02
Menstrual irregularities	48 (64%)	32 (42.6 %)	0.01
Intermenstrual bleeding	20 (26.6%)	7 (9.3 %)	0.01

Histogram 1: Histogram showing comparison of P/S findings and intermenstrual bleed in women with PCB and control in percentage



On Pap smear examination of women with PCB 32% had inflammatory smear, 34.6% had low grade squamous intraepithelial lesion (LSIL) and 18.7% had high grade squamous intraepithelial lesion (HSIL).

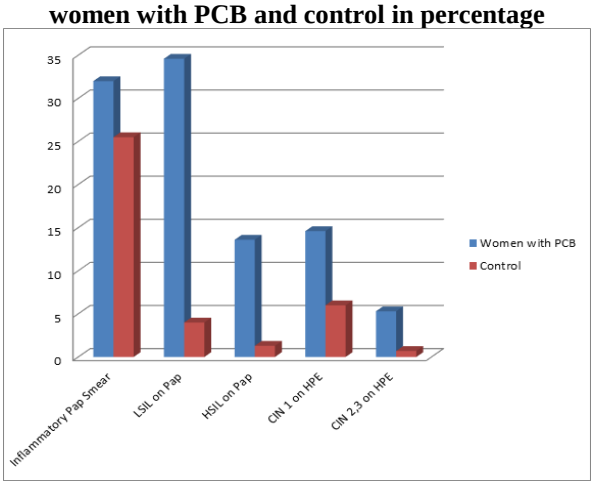
Colposcopic evaluation of cervix in all the 150 women revealed that 40% had normal colposcopic finding, 34% had colposcopic grade 1 lesion, 8% had colposcopic grade 2 lesion and 17% had colposcopic grade 3 lesion.

On histopathological examination cervical intraepithelial neoplasm (CIN) I was found in 14% and high grade (CIN 2, 3) CIN lesions were present in 5.3% cases in women with postcoital bleeding. Low grade CIN in women with PCB was 34.6% vs 4%in control group. High grade CIN lesions were present in 10.7% of women with PCB and was only 1.3% in control group(Table 3 and Histogram 2). No invasive cancer is found in our study.

Table 3: Distribution of Cases according to Pap smear and histopathology examination (HPE) report

Test	Women with PCB n(%)	Controls n (%)	P value
Inflammatory Smear on Pap	24 (32%)	19 (25.5%)	0.47
LSIL on Pap	26 (34.7%)	3 (4%)	0.0001
HSIL on Pap	14 (18.7%)	1(1.3%)	0.0001
CIN 1 on Histopathology	11 (14.6%)	6 (6.6%)	0.02
CIN 2 3 on Histopathology	8(10.7%)	1 (1.3%)	0.001

Histogram 2: Histogram showing comparison of Pap smear findings and results of histopathology in women with PCB and control in percentage



Discussion

In our study benign changes such as polyp, ectropion and infection were the most common causes of PCB. Ectropion was seen in 42.7% of the patients, which is high as compared to previous studies that had estimated the prevalence of ectropion between 5 % and 33.6%.[1,3]

In 38.7% of the patients, no reason was found for PCB, it conforms with the previous studies which have reported the prevalence of unjustifiable PCB as 49% and 50%.[1,4]

On histopathological examination cervical intraepithelial neoplasm (CIN) 1 was found in14.6% and high grade (CIN 2, 3) CIN lesions were present in 10.7% cases in women with postcoital bleeding No invasive cancer is found in our study. There are several studies reporting the incidence of malignancy with PCB (9.1, 3%).[5,6] In the study done by Tehranian et al. only one case of cervical cancer (0.8%) and 3 cases of CIN 1 and CIN 3 (2.4%) have been reported.[6] In other studies the occurrence of cervical abnormal pathologies has been reported from 6.9% to 17%.[1,2,4,5]

Although the patients should be reassured that most cases of PCB occur due to benign changes, the patients with prolonged PCBs should undergo colposcopic

examination, even if no particular point was noticed in their physical examination or their cytology.

Conclusion

It seems that the women with PCB have a much greater risk of cervical cancer than other women. A normal cervical smear in women with postcoital bleeding does not rule out the possibility of cervical intraepithelial neoplasia or invasive cancer.

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