ORIGINAL ARTICLE

The Frequency of Pathology in Women Presenting with Postcoital Bleeding

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ABSTRACT

Objective: The aim of this study is to detect the prevalence of carcinoma cervix amongst women presenting with postcoital bleeding.
Design: A cross sectional study.
Place and duration of study: Sir Ganga Ram Hospital, from 2006 to 2008; two year study.
Patients and methods: We reviewed 283 women with abnormal uterine bleeding out of which 92 women also complained of postcoital bleeding. Their cervical smear, colposcopy and directed biopsy were done .The histopathology records were reviewed. The aim was to detect the frequency of cervical cancer in these patients.
Results: 92 patients presented with postcoital bleeding.40 patients out of 92 (43.47%) had normal findings on cervical smear. 15.2% of patients had CIN out of which 11.95% had high grade CIN(CIN II or III). 30.43% of women had inflammatory smear. Cervical polyps were found in 5.43% of patients. Invasive cancer cervix was found in 5.43% of patients.
Key words: PCB (postcoital bleeding), cervical cancer, cervical smear, colposcopy, Cervical biopsy.

INTRODUCTION

PCB is defined as bleeding occurring during or immediately after sex independent from menstruation. It can be a symptom in women experiencing abnormal uterine bleeding. PCB has many causes, the most serious of which is cervical cancer[2]. The main aim of investigating women with PCB is to exclude serious cervical cancer. Cancer cervix is the second most common cause of cancer related deaths worldwide. The incidence of cervical cancer is 9.5/100,000[1]. Sexual activity has been correlated with the disease, especially age of first intercourse and number of sexual partners. Cancer Cervix is caused by HPV (Human Papilloma virus) infection; Type 16, 18, 31 & 33. HPV is common in sexually active women and routine cervical smear testing identifies a higher proportion of women with CIN than conventional cytology. HPV testing may also be of value in predicting whether or not low-grade changes will progress. Referring women with HPV positive smear for colposcopy will detect CIN at its early stage and treatment will prevent invasive disease. Now HPV vaccine is available which prevents progression of HPV disease.

Pathology: Most of the cervical tumors are squamous (70%) and adenocarcinoma and adenosquamous carcinoma, in roughly equal proportions, form about (25%). FIGO has dropped the term 'early stromal invasion and uses the terms microinvasive and invasive carcinoma of cervix

Staging of cervical carcinoma

Stage	Features
O	Preinvasive disease
I	Carcinoma confined to cervix (extension to corpus should be disregarded)
Ia	Invasive cancer identified only microscopically. All gross lesions are stage Ib cancers.
Ib	Clinical lesions confined to the cervix or preclinical lesions greater than 1a. Carcinoma extending beyond the cervix and involving the vagina (but not the lower one third) and parametrium (but not reaching pelvic side wall).
III	Carcinoma involving the lower third of vagina and / extending to the pelvic side wall.
IVa	Carcinoma involving the mucosa of the bladder or/ rectum and/or extending beyond true pelvis.
IVb	Spread to distant organs.

PATIENTS AND METHODS

A prospective study was conducted in Gynae Unit III of Sir Ganga Ram Hospital Lahore. All patients presenting with abnormal uterine bleeding with postcoital bleeding in the study period were included in the study. The age range of population was 18—61 years (mean age 39.5 years).A careful history of the patient including a woman's age, marital status, extramarital relations, frequency of coitus and use of contraceptive methods were taken. Detailed obstetric history and any past treatment for sexually transmitted infection was also inquired. History of regular cervical smear and any previous abnormal cervical smear was taken. History of any surgery on cervix and endometrial sampling was also taken. Any personal or family history of gynecological or breast

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malignancy was also recorded. After general physical examination, speculum examination under good light with clear exposure of the cervix was carried out. High vaginal swabs, urine and blood samples were taken to detect sexually transmitted infections in patients presenting with vaginal discharge. The patients with inflammatory smear were treated with appropriate antibiotics and their smears repeated. Cervical smear was taken in those with no history of smear in past 3 months. Depending on the report of cervical smear, these patients were subjected to coloscopy and cervical biopsy. Five women had cervical polyps which were removed during colposcopy. Transvaginal scanning, pipple endometrial sampling and/or hysteroscopy and diagnostic D & C was done in women presenting with PCB and intermenstrual bleeding. The main outcome measure was histopathological diagnosis.

RESULTS

Two hundred and eighty three women presented with abnormal uterine bleeding during the study period; out of which 92 women also complained of postcoital bleeding. After a detailed history and examination, cervical smear of all these women showed no pathology in 40 women (43.47%). No cause of PCB was found in these women. There previous record of Cervical smear was normal in 15 women and no record of cervical smear was found in 25 women. Thus the prevalence of regular cervical smear is still low in our population. Inflammatory smear was found in 28 women (30.43%). these women were treated with appropriate antibiotics and repeated smears were found to be normal. Three women had cervical cautery. All these women were advised follow up with regular cervical smears.14 women (15.2%) presented with CIN; of which 11.95% were high grade CIN. The patients underwent colposcopy and directed biopsy. 11.95% were high grade CIN (9 CIN II and 2 CIN III). The women with CIN II & III, who had completed their family (6 women) and menopausal (5 women) underwent total abdominal hysterectomy with or without salpigo-ophorectomy (11 women). 5 women (5.43%) were diagnosed to have invasive carcinoma of cervix. All five women were post menopausal, and unfortunately all these presented with advanced stage disease; stage III or IV on clinical staging under anesthesia. All these women had radiotherapy for advanced stage disease. 5(5.43%) pts had cervical polyps, which were removed during colposcopy.

DISCUSSION

Cervical cancer is a major health problem in the world today. In some developing countries it is the second most common female cancer after carcinoma of breast. It is estimated that around 37000 cases of cervical cancer are diagnosed in the world each year. In the UK the situation continues to improve. In 1997 there were 2,740 cases of cervical cancer in England and Wales with 1,222 women dying of the disease. This represents a death rate of around 4 per 100,000. This compares with a death rate in 1979 of 7 per 100,000, which is an improvement of over 40%. Cervical cancer is a disease of young women and most commonly occurs around the mid 40's. It can affect a wide age range and women in their 20's may develop the disease. Symptoms of cervical cancer are bleeding between periods and/or after sex. Vaginal bleeding after sex is a frightening end. What should be a pleasant experience? Although postcoital bleeding has a variety of benign causes; it is considered as the cardinal symptom of cervical cancer[1,2]. The Royal College of Obstetricians and Gynecologists, the Royal Australian College of General Practitioners and the Australian society for Colposcopy and Cervical Pathology have guidelines for referral for investigation of intermenstrual and postcoital bleeding, revised in 2004[3,4]. The guidelines published by department of health in United Kingdom defined criteria for referral for colposcopy ; urgent referral(within 2 weeks) for PCB for more than 4 weeks in women > 35 years of age and early referral (4—6 weeks) in all other cases of repeated unexplained PCB.5 PCB has many benign causes including chronic cervicitis[13] especially Chlamydia[7,8], benign cervical polyps, cervical ectopy, CIN, and no pathology at all[3,4]. There is reduction in the incidence of cervical cancer following the National Health Screening program for cervical cancer screening[5]. The study in Scunthrope General Hospital suggested; the sensitivity of cervical smear 56% and specificity of 96%, PPV of 56% and NPV of 90%. There is no evidence of benefit of assessing a woman with postcoital bleeding if a cervical smear is not due[1]. Inspite of the fact that many studies reported high incidence of cervical cancer in women presenting with PCB, Colposcopy is indicated if there is suspicion of carcinoma cervix or if the smear shows cervical dyskariosis or if the symptoms persist.[(10)] According to a study by Shalini et al, colposcopy has PPV and histopathology rate of 54% each11. Hysteroscopy should be considered if PCB and IMB coexist and directed biopsy may be taken as it gives a chance to visualize endometrial cavity direct under magnification. In two case series from United States[6,7] postcoital bleeding occurring in 6% and 10% of 81 and 231 women with cervical cancer respectively. 20 cases of invasive cervical cancer (30%) presented with PCB. In a study by Rosenthal[4] of 314 women with PCB, 3.8% presented with PCB. In a retrospective study of 284 nonpregnant women[2],

4.2% and 32.7% presented with cervical cancer and CIN respectively. Infection[3,14] was the underlying factor in 5.6% and 35.5% women had normal smear. Another case series[10], a study of 284 women referred with PCB, reported no cases of lower genital tract cancer following PCB. In recent study[2] of 142 cases of women presented with PCB , no case of lower genital tract invasive neoplasia was identified. Out of 142 women, 31% had normal smear, 19% had CIN, out of which 10.6% cases had high grade CIN. A study by Shalini[10] of 110 women presented with PCB, 6.4% had CIN, 21% had infection, 45 women investigated had normal smear. The study concluded that women referred have a lower incidence of histological abnormality. The incidence of cervical cancer 5.4% in our study, is higher than that found in Rosenthal study (4)3.8% and 4.2% by Khattab2 ,14 the difference may be due to the study being carried out in a tertiary referral hospital, there being few cancer hospitals in our country. It may be because the prevalence of cervical smear is still low in this country due to orthodox background and low literacy rate the cancer also presented in advanced stage; this difference could be due to late stage of presentation of the study group. Once invasive cervical cancer is diagnosed the treatment is either surgery or radiotherapy depending upon the stage of presentation of disease.

Disease stage	Treatment
Ia1	cervical conization or simple total hysterectomy
Ia2	Wertheims hysterectomy
Ib&IIa	Wertheims hysterectomy or radiotherapy.
IIb—IV	Radiotherapy alone
Recurrent disease	Radiotherapy, exanterative surdery or chemotherapy.

The cure rate depends upon the stage of treatment;

Disease stage	5 year survival
Stage 1	65—90%
Stage 11a	45---85%
Stage 11b	45---65%
Stage 111a	20---45%
Stage 111b	20---35%
Stage 1V	0---15%

CONCLUSION

The frequency of finding invasive cervical cancer in women with PCB is low. However, a good proportion of cervical cancer presents with PCB. Therefore, PCB should continue to be regarded as an indication of high risk for invasive cervical carcinoma and should be investigated by colposcopy. There is a need of implementing cervical screening programme more seriously in our country to prevent late stage presentation of a potentially curable disease.

REFERENCES

1. Jha S, Sabharwal S. Outcome of colposcopy in women presenting with negative or no pathology. Journal of Obstetrics and Gynaecology 2002.
2. Khattab AF, Ewies AA, Appleby D, Cruickshank DJ. The outcome of postcoital bleeding. Journal of Obstetrics and Gynaecology 2005; 25: 279-282
3. Royal Australian and New Zealand College of Obstetricians and Gyneacologists. Referral and investigations of intermenstrual and postcoital bleeding.2004
4. Rosenthal NA, Panoskaltsis T, Smith T, Soutter WP. The frequency of women attending general gynaecologial service for postcoital bleeding .Obstetrics and Gynaecology 2001; 108: 103-106
5. Department of Health . NHS Executive Guidelines for referral of postcoital bleeding. www.ispub.com/ostia/index.
6. Verhoven V, Avontus D, Meheus A.Chlamydial infection :a screening in general Practice. Sex Transm Infect 2003;79:313-317
7. Gotz HM, Van Bergen Jeam, Veldhuijizen IK. A prediction rule for Chlamydial Trachomatis Infection. Sex Trasm Infect 2005; 81:24-30
8. Shalini R, Amita S, Neera MA. How alarming is postcoital bleeding investigation. 1998; 45: 205-208.
9. Abu-J, Davies Q, Ireland D. Should women with postcoital bleeding be refferd for colposcopy. Journal of Obstetrics and Gynaecology 2006;26(1):45-47
10. Selo-Ojeme Do, Dayoub N, Patel A, Metha M. A Clinico-Pathology Arch Gynecol Obstet 2004; 270: 34.
11. Pretorius R, Semard N, Watring W, Fotherringham N. Presentation Oncology;1991;42:48-53
12. Shapley M, Jordan J, Croft PR. A systematic reviewof postcoital bleeding cancer. British journal of general practice.2006;6:453-460.
13. Bax CJ, Oostvogelpm,Mutsaers JEAM. Clinical characteristics of infections in general outpatient Department of Obstetrics and Gynaecologist Transm Infect 2002;78:
14. Ewies A ,Khattab A, Appleby D, Cruickshank DJ. The referral practice for postcoital bleeding.Journal of Obstetrics and Gynaecologist 2004;24:721-722
15. Guimaraes MDC, Valhov C, Castilho EA. Postcoital vaginal bleeding and transmission of the Human immunodeficiency virus in heterosexual patient.Med1997; 157:1363-1369
16. Fortnightly review: Management of abnormal bleeding in women receiving …Medline search
17. Health Research-Related publications-RTI International www.rti.org
18. Human Cancer Cancer incidence in Karachi, Pakistan: First results from Karachi Cancer Registry
19. August 1999.Yasmin Bhurgis, Asif Bhurgi, Sheema H Hassan et al. Sankar @ iarc.fr

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