

## Evaluation of Post Coital Bleeding By Cinical and Pathological Finding

Dr. Gangwal Himanshi<sup>1</sup>, Dr. Rajoria Lata<sup>2</sup>

Senior Resident Department of Obstetrics & Gynaecology SMS Medical College, JAIPUR (Raj.)

Professor & Head of Department Department of Obstetrics & Gynaecology SMS Medical College, JAIPUR (Raj.)

---

### Abstract:

**Objective(s):** To evaluate the women presenting with post-coital bleeding by cytology, colposcopy and histopathology and to formulate the strategy for management of patients with this symptom.

**Method(s):** This prospective study was carried out in 100 women attending Gynae outdoor with complaints of post coital bleeding by using cytology, colposcopy and colposcopic directed biopsy of suspicious lesion.

**Result(s):** Out of 100 patients, 30 patients had normal colposcopy findings and biopsy was not taken in these patients, 13 cases had biopsy unremarkable. 29 cases had chronic cervicitis, 6 cases had cervical polyp, 11 cases had cervical intra-epithelial neoplasia, 2 cases had carcinoma in situ and 8 cases had invasive cancer of cervix. Cervical erosion was the most common benign colposcopic finding.

**Conclusion(s):** Although invasive cancer is rare in women with post-coital bleeding, it is much commoner than the general population. Cervical intra-epithelial neoplasia is also associated with post-coital bleeding perhaps because the fragile cervical epithelium becomes detached during intercourse. Post-coital bleeding should continue to be regarded as an indication of high risk for invasive cervical cancer and for cervical intra-epithelial neoplasia.

**Keywords:** Post coital bleeding, colposcopy, cervical erosion, cervical intraepithelial neoplasia, invasive cancer of cervix.

---

### I. Introduction

Postcoital bleeding is the term used to describe vaginal bleeding relating to intercourse. This is non menstrual bleeding occurs immediately after sexual intercourse.<sup>1</sup> Postcoital bleeding can occur due to a number of reasons and nothing should be taken lightly. Persistent postcoital bleeding is more common than intermittent bleeding and generally associated with vaginal, cervical or intrauterine abnormality.<sup>2</sup>

The most common cause is lesions on the cervix like erosion, inflammation, metaplasia, warts (Human papilloma virus infection), Cervical Intraepithelial Neoplasia Grade-I, II, III, carcinoma in situ, carcinoma cervix, tubercular ulcer, atypical vessels and polyp etc. Cancer of cervix also causes postcoital bleeding. The range of prevalence of post-coital bleeding in women with cervical cancer is 0.7 to 39%.<sup>3</sup>

All cases of postcoital bleeding should be carefully evaluated. There should be a complete history including high risk factors, menstrual history, gynaecological history, medical history like any bleeding disorder and current medication. After a detailed history, examination is done. After that a per speculum examination facilitating careful visualization and inspection of vagina and cervix is warranted to assess the patient for vaginitis or cervicitis.<sup>2</sup> Pap smear taken from cervix using Ayre's Spatula can help make a differential diagnosis by ruling out infection and cervical pathology.<sup>4</sup> A colposcopic examination of the vagina and cervix could ascertain the presence of lesions not readily visible with a routine speculum examination. If indicated biopsy should be taken and sent for histopathology.

### II. Methods

This prospective study was conducted in Gynae-Oncology unit, Department of Obstetrics and Gynaecology, SMS Medical College, Jaipur from January 2007 to August 2008. The study included 100 patients who attended the gynaecology outdoor presenting with postcoital bleeding. 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 histopathological examination.

### **III. Results**

The ages of the patients were ranging from 22 to 62 years while the mean age for post-coital bleeding was 34.5 years. Out of 100 patients, 30 patients had normal colposcopy findings and biopsy was not taken in these patients, 13 cases had unremarkable biopsy, 29 patients had chronic cervicitis, 6 patients had cervical polyp, 11 patients had cervical intra-epithelial neoplasia, 2 patients had carcinoma in situ and 8 patients had invasive cancer of cervix. The mean age of patients with invasive cervical cancer was 42.5 years versus 33.5 years in patients with benign pathology (Table 1).

Majority of patients attending Gynae outdoor with complaints of post-coital bleeding were multipara (63%), were from low socio-economic status (53%), and had the first coitus before 18 years of age (70%). Mean parity for invasive cervical cancer was 4.3 versus 2.71 for benign disease (Table 2).

High grade cervical intra-epithelial neoplasia and invasive cancer were more common in low socioeconomic status and in women who had first coitus before 18 years of age. Majority of patients had duration of postcoital bleeding one month to three months. HiSIL and invasive cervical cancer were most common in women having post-coital bleeding more than 6 months duration (30% and 10% respectively).

On per-speculum examination majority of patients (55%) had erosion of cervix, 36% had hypertrophied cervix, 2% had laceration of cervix, 6% had cervical polyp and 1% had vaginal tear (Table 3).

On Pap smear inflammatory cytology was most common (63%). 15% had normal cytology, 6% had LSIL, 9% had HiSIL and 7% had malignant cells in the smears. Out of 70 patients, who had undergone biopsy, 64 patients (91.42%) had well correlation between cytology and histo-pathology (Table 4).

Colposcopic evaluation of cervix in all the 100 women revealed that 30% had normal colposcopic finding, 46% had colposcopic grade 1 lesion, 7% had colposcopic grade 2 lesion and 17% had colposcopic grade 3 lesion. Out of 100 patients, 94 cases (94%) had well correlation between colposcopy and cytology. Out of 70 patients who had undergone biopsy, 66 (94.28%) patients had well correlation between colposcopy and histopathology (Table 5).

As far as treatment was concerned, 91 patients were given antibiotic treatment, electro-cautery was done in 22 cases, LEEP was done in 5 cases, polypectomy was done in 4 cases, total abdominal hysterectomy was done in 11 cases and radical hysterectomy with bilateral pelvic lymphadenectomy was done in 8 cases.

### **IV. Discussion**

The age range of the study population was 22 to 62 years and the calculated mean age was 34.5 years which is almost similar to the study of Abu J, Davies Q et al (2006)<sup>5</sup> in which the age range was 16 to 61 years and the mean age was 34.1 years. 78% cases had benign findings, 3% had CIN 1, 4% had CIN 2, 5% had CIN 3, 2% had CIS and 8% had invasive cancer of cervix. In study of Shalini R et al (1998)<sup>6</sup>, 85.5% had benign changes, 5.6% viral HPV and CIN 1, 3.6% had CIN 2 and 3 and 5.5% had invasive cancer. In study of Rosenthal A.N. et al (2001)<sup>7</sup>, 4% had invasive cancer, 5% had cervical polyp, 17% had CIN and no explanation for post capital was found in 49% cases. The mean age of patients with invasive cervical cancer was 42.5 years and 33.5 years in patients with benign pathology which is almost similar to Shalini R et al (1998)<sup>6</sup> where the mean age of patients with invasive cancer was 41.3 years and 32.9 years in patients with benign pathology.

Cervical erosion was the most common finding on per speculum and colposcopic examination which was similar to that of Shalini R et al (1998)<sup>6</sup>.

The mean parity for invasive cancer was 4.3 and for benign disease 2.7. In study of Shalini R et al (1998)<sup>6</sup>, mean parity for invasive cancer was 4.2 and 2.8 for benign disease.

75% cases of invasive cervical cancer were found in low socio economic status which is almost similar to Ijaiya MA et al (2002)<sup>8</sup> in which 89.8% cases of invasive cervical cancer were from low socio economic status. High grade squamous intraepithelial lesion and invasive cancer were more common in patients who had first coitus before 18 years of age which is supported by Sapkal RU et al (2002)<sup>9</sup> who reported higher percentage of CIN and cervical cancer were found in those patients whose age at first coitus was less than 18 years.

### **V. Conclusion**

After observing all these results, we can conclude that all women presenting with post-coital bleeding should undergo a full pelvic examination starting from per-speculum examination followed by pap smear, colposcopy and biopsy if indicated.

Although invasive cancer is rare in women with post-coital bleeding, it is much commoner than the general population. It seems likely that cervical intra-epithelial neoplasia is also associated with post-coital bleeding perhaps because the fragile cervical epithelium becomes detached during intercourse. Post-coital bleeding should continue to be regarded as an indication of high risk for invasive cervical cancer and cervical intraepithelial neoplasia. Prompt referral to a colposcopy clinic is indicated, but most women with post coital bleeding have no serious abnormality.

Reference List

- [1]. Albers JR, Hull SK, Wesley RM; Abnormal uterine bleeding; Am Fam Physician; 2004 April; 15; 69(8) : 1915-26.
- [2]. Smith CB, pinpointing the causes of abnormal uterine bleeding. Women health prim care, 1998 ; 1 : 835-844.
- [3]. Shapley M, Jordan J, Croft PR, A systematic review of postcoital bleeding and risk of cervical cancer. Br J Gen Pract. 2006 Jun; volume 56 , number 527: pp 453-60 (8).
- [4]. Cline, M.K. et al (1994). Papanicolaou smear discrepancy : Resolution of review. J. Am. Board Fam Pract. 1994 Jan-Feb; 7 (1) : 9-13.
- [5]. Abu J, Davies Q, Ireland D. Should women with postcoital bleeding be referred for colposcopy? J Obstet Gynaecol. 2006 Jan; 26(1) : 45-7.
- [6]. Shalini R, Amita S, Neera MA. How alarming is postcoital bleeding : a cytologic, colposcopic and histopathologic evaluation. Gynecol Obstet. Invest. 1998; 45(3) : 205-8.
- [7]. Rosenthal AN, Panoskaltis T, Smith T, Soutter WP. The frequency of significant pathology in women attending a general gynaecological service for postcoital bleeding. BJOG. 2001 Jan; 108(1) : 103-6.
- [8]. Ijaiya MA, Aboyeji PA, Buhari MO. , Cancer of the cervix in Ilorin, Nigeria. West Afr J Med. 2004 Oct-Dec;23(4):319-22.
- [9]. Sapkal RU : Treatment of cervical intraepithelial neoplasia by Loop Electrical Excision Procedure (LEEP) . Indian J of Gynae. Oncology 2002 ; 2 (1); 5-11.

Tables

Table – 1: Correlation Between Age and Histopathology Findings

Age	Total No. of patients	No Biopsy	Unrem-arkable Biopsy	Chronic Cervicitis	Fibroid Polyp	Inflam-matory Polyp	Cervical Intra Epithelial Neoplasial	Cervical Intra Epithelial Neoplasia2	Cervical Intra Epithelial Neoplasia3	Carcinoma in Situ	Invasive cancer
21-25	06	04	01	01	-	-	-	-	-	-	-
26-30	36	15	10	10	-	-	01	-	-	-	-
31-35	24	08	02	09	-	01	01	-	01	-	02
36-40	21	02	-	05	03	02	01	02	03	-	03
41-45	06	01	-	03	-	-	-	01	-	-	01
46-50	04	-	-	01	-	-	-	01	01	01	-
51-55	01	-	-	-	-	-	-	-	-	-	01
56-60	00	-	-	-	-	-	-	-	-	-	-
61-65	02	-	-	-	-	-	-	-	-	01	01
<b>Total</b>	<b>100</b>	<b>30</b>	<b>13</b>	<b>29</b>	<b>03</b>	<b>03</b>	<b>03</b>	<b>04</b>	<b>05</b>	<b>02</b>	<b>08</b>

Table – 2: Correlation Between Parity and Histopathology

Parity	Total No. of Patients	No Biopsy	Biopsy Unrem-arkable	Chronic Cervicitis	Fibroid Polyp	Inflam-matory Polyp	Cervical Intra Epithelial Neoplasial	Cervical Intra Epithelial Neoplasia2	Cervical Intra Epithelial Neoplasia3	Carcinoma in Situ	Invasive Cancer
Nullipara	02	01	-	01	-	-	-	-	-	-	-
Primipara	02	01	01	-	-	-	-	-	-	-	-
Multipara (<= 3)	63	26	09	16	02	02	02	02	02	-	02
Grand multipara (>= 3)	33	02	03	12	01	01	01	02	03	02	06
<b>Total</b>	<b>100</b>	<b>30</b>	<b>13</b>	<b>29</b>	<b>03</b>	<b>03</b>	<b>03</b>	<b>04</b>	<b>05</b>	<b>02</b>	<b>08</b>

Table – 3: Distribution of Cases According to Per-Speculum Examination

Findings on P/S Examination	Cases	Percentage
Erosion of cervix	55	55
Hypertrophied cervix	36	36
Laceration of cervix	2	2
Cervical polyp	6	6
Vaginal tear	1	1
<b>Total</b>	<b>100</b>	<b>100</b>

Table – 4: Correlation of pap's smear with Histopathology

Pap's Grade	Total No. of Patients	No Biopsy	Biopsy Unrem-arkable	Chronic Cervicitis	Fibroid Polyp	Inflam-matory Polyp	Cervical Intra Epithelial Neoplasial	Cervical Intra Epithelial Neoplasia2	Cervical Intra Epithelial Neoplasia3	Carcinoma in Situ	Invasive Cancer
1 (Normal)	15	10	2	0	2	1					
2 (Inflam-matory)	63	20	11	28	1	2	1				
3 (LSIL)	06	0	0	1	0	0	2	2	1		
4 (HSIL)	09	0	0	0	0	0	0	2	4	2	1
5 (Squamous cell carcinoma)	07	0	0	0	0	0	0	0	0	0	7
<b>Total</b>	<b>100</b>	<b>30</b>	<b>13</b>	<b>29</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>2</b>	<b>8</b>

**Table – 5: Correlation of Colposcopy Findings with Histopathology**

Colposcopy Findings	Total	No Biopsy	Biopsy Unremarkable	Chronic Cervicitis	Fibroid Polyp	Inflammatory Polyp	Cervical Intra Epithelial Neoplasia1	Cervical Intra Epithelial Neoplasia2	Cervical Intra Epithelial Neoplasia3	Carcinoma in Situ	Invasive Cancer
Normal	30	30	--	--	--	--	--	--	--	--	--
Grade 1 (insignificant infection, not suspicious)	46	--	12	26	3	3	1	1	--	--	--
Grade2 (significant, suspicious)	7	--	1	2	--	--	2	1	1	--	--
Grade 3 (highly significant, suspicious)	17	--	--	1	--	--	--	2	4	2	8
<b>Total</b>	<b>100</b>	<b>30</b>	<b>13</b>	<b>29</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>2</b>	<b>8</b>