

## A study of endometrium of patients with abnormal uterine bleeding at Chitwan valley

Dangal G<sup>1</sup>

<sup>1</sup>Department of Obstetrics and Gynaecology, Kathmandu University Medical School (Banepa)

---

### Abstract:

**Objective:** To know the causes for the abnormal uterine bleeding in Women at Chitwan Valley and to compare the histopathological findings between the pre-menopausal and postmenopausal women. **Design:** A descriptive study of patients who have had vaginal bleeding during the period from January 2000 to July 2002. **Setting:** Department of Gynaecological Oncology of BP Koirala Memorial Cancer Hospital (BPKMCH), Chitwan, Nepal. **Subjects:** Eighty-four women (aged 45 year and above) having abnormal vaginal bleeding managed at BPKMCH. **Main Outcome Measured:** Various characteristics of the patients including age, menopausal status, histopathological findings. **Results:** A total of eighty-four patients were studied. Majority (53.5%) of them were postmenopausal ladies presenting with abnormal vaginal bleeding. The age range was 45 to 81 years, with an average of 63. Only 37% had pathological bleeding including malignancy and about 16.6% of all had malignancies. Malignant diseases were found in 7.7% cases in the pre-menopausal ladies whereas it was 24.3%, three times higher, in the post-menopausal ladies. **Conclusion:** Carcinoma of the cervix and of the endometrium occurred with increasing frequency with increasing age in this study. So, a thorough work-up is needed for the perimenopausal/postmenopausal women presenting with an abnormal vaginal bleeding especially to rule out malignancies.

**Keywords:** *curettage, endometrial biopsy, endometrial cancer, post-menopausal bleeding.*

---

Abnormal uterine bleeding is one of the most common problems in the perimenopausal age group. The abnormal bleeding can be caused by a wide variety of disorders. It may represent a normal physiological state, and observation alone may be warranted. Alternatively, the bleeding can be a sign of a serious underlying condition necessitating aggressive treatment that could include a major procedure.<sup>1</sup>

The causes for the bleeding in elderly women are hormonal, pregnancy complications, bleeding diathesis and more importantly local pathology including malignancy, benign tumours, and infection. While Dysfunctional Uterine Bleeding (DUB) is responsible for most cases of abnormal uterine bleeding in the adolescent age group, the incidence of structural pathology increases in other age groups.<sup>2</sup>

The bleeding in the elderly in perimenopausal period may be secondary to estrogen withdrawal (physiological state). In some cases it may be due to malignancy of the reproductive organs, particularly in postmenopausal women.

The need to embark upon a diagnostic curettage in perimenopausal women cannot be overemphasized<sup>2</sup>.

It is now generally accepted that an adequate clinical examination of abdomen and pelvis, and uterine curettage, hysteroscopy or at least an endometrial biopsy are essential to exclude organic disease of the uterus in these women<sup>3</sup>.

The present study was carried out firstly to find out the causes for abnormal uterine bleeding in Nepalese women at Chitwan valley and secondly to compare the histopathological findings between the pre-menopausal and postmenopausal women.

### Material and Methods

The study population comprised of women aged 45 year and above who attended the gynaecological oncology outpatients department at B.P. Koirala Memorial Cancer Hospital (BPKMCH), Bharatpur from January 2000 to July 2002. A total of 84 patients who underwent examination under anaesthesia (EUA), dilatation and curettage (D&C) and endometrial biopsy for diagnostic reasons were

---

### Correspondence

Dr. Ganesh Dangal, MBBS, MD  
Department of Obstetrics and Gynaecology  
Kathmandu University Medical School (Banepa)  
E-mail: gareshma@hotmail.com

included in the study. Each had abnormal uterine bleeding and all the patients with abnormal vaginal bleeding except those with pregnancy complication and clinically diagnosed cases of local lesions like cancer of the cervix, were included in the study. All procedures were performed under intravenous anaesthesia. Details of the histopathological reports were obtained from the laboratory.

## Results

Eighty-four women were included in the study. Of these 45 (53.5%) were postmenopausal and 39(46.5%) were premenopausal. Their age ranged from 45 to 81 years with a mean age of 63 years. All were multiparous housewives.

**Table 1.** The Histopathological Examination (HPE) findings of the 84 patients.

Findings	Premenopausal Bleeding (n=39)	Postmenopausal Bleeding (n= 45)	All Patients (n=84)
Atrophic Endometrium	0 (0%)	29 (64.4%)	29 (34.5%)
Proliferative Endometrium	15 (38.5%)	0 (0%)	15 (17.8%)
Secretory Endometrium	9 (23%)	0 (0%)	9(10.7%)
Endometrial Carcinoma	0 (0%)	8 (17.7%)	8(9.5%)
Endocervical Carcinoma	3(7.7%)	3 (6.6%)	6 (7.1%)
Endometrial Hyperplasia	9 (23%)	0 (0%)	9 (10.7%)
Endometritis	0 (0%)	5 (11.1%)	5 (6.0%)
Endometrial Adenofibroma	3 (7.7%)	0 (0%)	3 (3.5%)

Of all the patients with the bleeding, only 36.8% had pathological bleeding and 16.6% of all had malignant diseases.

Among the 84 patients, majority (34.5%) had atrophic endometrium, followed by malignancies

(17%), proliferative endometrium (17%) and others.

Malignancies were found in 7.7% cases in the premenopausal group whereas it was 24.3%, almost three times higher, in the postmenopausal group.

**Table 2.** The HPE findings in Postmenopausal bleeding cases (n=45).

Findings	No. Of Cases (%)
Atrophic Endometrium	29 (64.4%)
Endometrial cancer	8 (17.7 %)
Endocervical cancer	3 (6.6 %)
Endometritis	5 (11.1 %)
Total	45 (100 %)

In 35.4 % of postmenopausal bleeding (PMB) cases, the bleeding was pathological. Of these 45 cases with PMB, majority (64.4%) had atrophic endometrium followed by malignancy of the endometrium and the cervix (24.3%), and others as shown in table 2.

## Discussion

Abnormal and excessive endometrial bleeding without structural pathology occurs in reproductive women of all ages but is more common in adolescent and perimenopausal women<sup>2</sup>. In the perimenopausal years menstrual cycles often become irregular due to the decreased number of ovarian follicles and their increased resistance to gonadotrophic stimulation, resulting in a low level of estrogen, which cannot keep the normal endometrium growing<sup>3</sup>.

Postmenopausally DUB is frequently associated with an atrophic endometrium - an unprepared (atrophic) endometrium resulting from inadequate secretion of estrogens<sup>3</sup>.

In the present study also, DUB was more common (63%) of all 84 patients. Similarly postmenopausal bleeding was frequently associated with an atrophic endometrium, which was 64.4% of all PMB cases. Overall about 2/3<sup>rd</sup> of the women in this study had DUB.

As the women get older the incidence of structural abnormality including malignancy increases.<sup>1,2</sup> Seventeen percent of all patients in our study had malignancies (of endometrium / endocervix).

A higher incidence of malignancy was seen in the postmenopausal group as compared to the premenopausal group (24.3% Vs 7.7 %).

As shown in table 2, the incidence of endometrial cancer in the postmenopausal group of this study was found to be 17.6% which is much lower than that reported in a Chinese study of postmenopausal bleeding that showed the incidence to be 50%<sup>4</sup>.

In various studies, malignancy of the genital tract accounted for 30-50% of cases of bleeding in the postmenopausal period<sup>5</sup> and about 15% of all such cases had endometrial carcinoma<sup>6</sup>

In another study of 475 women complaining of PMB, there was 10% risk of a genital cancer and a further 10% risk of significant pathology<sup>7</sup> and about 8.1% had adenocarcinoma of the endometrium and 1.3% had squamous cell carcinoma of the cervix.

In the present study, 24.3% of PMB had malignancy (excluding the clinically diagnosed carcinoma of the genital tract), which is comparable to other studies from around the world. It seems to be slightly lower, the explanation being the exclusion of clinically diagnosed cancers in this study of vaginal bleeding.

The incidence of endometrial carcinoma in this study was 17.6% of PMB, which is also comparable to other studies of PMB, except for a Chinese study that showed a higher incidence of endometrial carcinoma of 50% in PMB cases<sup>4</sup>. One of the explanations for the higher incidence of endometrial cancer in Chinese women is the adoption of one child policy for birth control in China.

The lower incidence of endometrial cancer in Nepalese women may be due to the practice of early childbearing and multiparity as compared to Chinese women who have to have only one child as per the government's policy of birth control. As we know that the endometrium is in resting state (inactive state) during pregnancy and the resting state is much longer in Nepalese women because of early childbearing and multiparity as compared to the Chinese women. That may be the reason why Nepalese women had lower incidence of endometrial cancer (17.6% Vs 50%) as compared to the Chinese.

### **Conclusion**

Abnormal uterine bleeding in perimenopausal women is most commonly dysfunctional in origin. Carcinoma of the cervix and of the endometrium occurs with increasing frequency with increasing age.

About 1/6<sup>th</sup> (16.6%) patients had malignant disease in this small study. This shows the importance of doing curettage and biopsy.

Diagnostic curettage, hysteroscopy or endometrial biopsy is mandatory without delay in all cases of perimenopausal and postmenopausal bleeding to rule out malignancy.

Organic diseases of the genital tract may be missed even by curettage. The sensitivity in detecting intrauterine pathology by curettage is 94-97.5%<sup>7</sup>.

It is therefore important in all cases of recurrent or severe abnormal bleeding to perform a repeated curettage. The age of the patients should not determine if a biopsy is performed since endometrial cancer has been diagnosed in women as young as 16 years age.

### **Acknowledgement**

I would like to thank my colleagues at the cancer hospital, Dr. Yan Feng, Dr. Jia Ru, Mr. M.R. Sapkota, Mr. R. Malli and Mr. R.C. Subedi for their help in preparing this paper. I record my thanks also to the hospital authority for allowing me to carry out this study.

### **References**

1. Bayer SR, DeCherney AH. Clinical Manifestations and Treatment of Dysfunctional Uterine Bleeding. JAMA. 1993; 269: 1823-1828.
2. Sharma JB. Dysfunctional Uterine Bleeding (DUB). Obstetrics and Gynaecology Today, 2000; 5(11): 20-25.
3. Davey DA. Dysfunctional Uterine Bleeding. In: Whit field CR, ed, Dewhurst's Textbook of Obstetrics and Gynaecology for Postgraduates. Glasgow, Blackwell Science, 1997: 590-6084.
4. Feng Y. Clinical analysis in 56cases of p/v bleeding. HeBei Medical Journal, 1989; 12:178-181
5. Anonymous. Postmenopausal Bleeding. In: Padubidri VG, Daftary SN, eds. Shaw's textbook of Gyaenocology, 12th ed., New Delhi, Churchill Livingstone, 1999: 45
6. Anonymous. Carcinoma of the endometrium. In: Padubidri VG, Daftary SN, eds. Shaw's textbook of Gyaenocology, 12th ed., New Delhi, Churchill Livingstone, 1999: 302-309
7. Quinn MA, Anderson MC, Coulter CAE, Soutter WP Malignant Disease of the uterus In: Shaw RW, Soutter WP, Stanton SL, eds. Gynaecology. London, Churchill Livingstone, 1997:585-603



**Dr. Ganesh Dangal, MBBS; MD**

**Address for correspondence:**

Dr. Ganesh Dangal, MBBS, MD  
Assistant Professor  
Department of Obstetrics and Gynaecology  
Kathmandu University Medical School (Banepa)  
P.O. Box 21833  
Kathmandu  
Nepal.

Telephone: 00977-11-664407  
Fax number: 00977-11-664406  
E-mail: [gareshma@hotmail.com](mailto:gareshma@hotmail.com)

**correspondence**

Dr. Ganesh Dangal, MBBS, MD  
Assistant Professor  
Department of Obstetrics and Gynaecology  
Kathmandu University Medical School (Banepa)  
E-mail: [gareshma@hotmail.com](mailto:gareshma@hotmail.com)