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Prevalence and bleeding pattern of endometrial polyp in women presenting with abnormal uterine bleeding at Maharaj Nakorn Chiang Mai Hospital

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ABSTRACT

Objective: To study the prevalence and bleeding pattern of endometrial polyp in women with abnormal uterine bleeding.

Materials and Methods: This was a retrospective descriptive study on 515 female patients with abnormal uterine bleeding at Maharaj Nakorn Chiang Mai Hospital from January 1, 2006 to December 31, 2008. These women had been investigated with either fractional curettage, endometrial sampling or hysteroscopy. The diagnoses were confirmed by pathological reports.

Results: The prevalence of endometrial polyp was 12.8%, at the mean age of 46.7 years old (range, 30-69 years old), which did not correlate with the age, reproductive status or methods of contraception ($p=0.78$, 0.75 and 0.45 respectively). However, in the postmenopausal group, the prevalence was significantly higher in the patients who received hormone replacement therapy (HRT) compared with those without it (31.2% vs 7.1%, $p=0.004$). The most common bleeding pattern of the patients with endometrial polyp was hypermenorrhea (58.2%).

Conclusion: The prevalence of the endometrial polyp was 12.8%, which does not correlate with the menstrual status, contraception methods or age. The most common bleeding pattern of the patients with endometrial polyp was hypermenorrhea (58.2%).

Keywords: abnormal uterine bleeding, endometrial polyp, hypermenorrhea

Introduction

Abnormal uterine bleeding (AUB) is a common problem in gynecology, especially in women older than 30 years old. The first and second most common

causes are endometrial polyp and myoma uteri at 58% and 42%, respectively⁽¹⁻³⁾.

Endometrial polyp (EP) is the growth of a specific area of the endometrium, which features as a polypoid

or sessile protrusion which consists of an endometrial gland, stroma and blood vessels^(1,4-7). The cause of EP is not clear, but the most common symptoms are postmenopausal bleeding, hypermenorrhea, intermenstrual bleeding and infertility^(2,6-9). Otherwise, a primary survey such as ultrasound does not have an infinite amount of diagnostic accuracy^(3,4,10).

The gold standard for diagnosis and treatment of endometrial polyp is hysteroscopy, which requires specific devices and expertise that are unavailable in most hospitals^(11,12). Thus, fractional curettage is still a treatment of choices for abnormal uterine bleeding in some developing countries. Unfortunately, fractional curettage is a blinded technique that does not cover all areas of the endometrium⁽¹³⁾ and cannot pick up specimens in pathological areas^(2,14).

Study on endometrial polyp, including symptoms and prevalence in different age groups, should be helpful for screening and increase treatment of abnormal uterine bleeding.

This study was aimed to examine the prevalence and bleeding pattern of endometrial polyp in woman who received tissue diagnosis for abnormal uterine bleeding.

Materials and methods

This retrospective descriptive study was performed by reviewing data from medical records of patients presenting with AUB at the outpatient unit of Maharaj Nakorn Chiang Mai Hospital from January 1, 2006 to December 31, 2008. They were sent for further investigation using fractional curettage, endometrial sampling with Endocell[®] or hysteroscopy.

Patients with abnormal uterine bleeding and required surgical intervention for pathological diagnosis were identified and recruited from the patient list records at gynecologic operation room and obstetric emergency room. After that the medical records of each patient were reviewed for baseline characteristics such as age, occupation, contraceptive method, bleeding pattern, surgical intervention, hormonal replacement therapy in postmenopausal patient and pathological reports. The data were analyzed for the bleeding patterns and prevalence of endometrial polyp using the computer

software STATA version 8.2 (StataCorp LP, USA). A comparison of non-continuous data groups were performed using the chi-square test. This study was conducted after approved by the Ethics Committee of the Faculty of Medicine, Chiang Mai University.

Results

Seven hundred and sixty nine patients presented with abnormal uterine bleeding at the outpatient unit of, Maharaj Nakorn Chiang Mai Hospital from January 1, 2006 to December 31, 2008 were chosen for further investigation. Of these patients, 254 patients had incomplete records; therefore, only 515 subjects were included in this study. The mean age of participating patients was 47.3 years old (range, 21-85 years old).

Sixty six patients (12.8%) were diagnosed as endometrial polyps and their mean age was 46.7 years old (range, 30-69 years old). The endometrial polyp was found in 13.0% and 11.9% in premenopausal and postmenopausal patients, respectively ($p = 0.75$). Hypermenorrhea was the most common symptom (58.2%) as shown in Table 1 and 2.

There was no significance difference among hormonal contraceptive ($p = 0.454$) as demonstrated in Table 3. However, in postmenopausal patients, endometrial polyps were more frequent in women who used hormone replacement therapy than those who did not use it (31.2% vs 7.1%, $p = 0.004$) as shown in table 4.

Diagnostic tissue was collected from 47 patients by fractional curettage, 7 patients by endometrial sampling and 9 patients by hysteroscopy. Four patients were diagnosed as endometrial polyp from their hysterectomy tissues because of persistent hypermenorrhea. Nevertheless, 1 out of 4 patients had recurrent endometrial polyp.

Of all recruited patients, only 122 patients with abnormal uterine bleeding underwent ultrasound examination. Fifty five of them had endometrial polyps. However, 50 of them were detected by ultrasonography.

Table 1. Symptoms of patients with endometrial polyp (N=66)

Symptoms	Number (%)
AUB in reproductive age	55 (83.3)
● Menometorrhagia	10 (15.2)
● Hypermenorrhea	32 (48.5)
● Intermenstrual bleeding	5 (7.5)
● perimenopausal bleeding	8 (12.1)
Postmenopausal bleeding	11 (16.7)
Total	66 (100.0)

AUB = Abnormal uterine bleeding

Table 2. Hormonal status with endometrial polyp

Hormonal status	EP No. (%)	Non-EP No. (%)	Total (%)
Reproductive age	53 (13.0)	353 (87.0)	406 (100.0)
Postmenopause	13 (11.9)	96 (88.1)	109 (100.0)
Total	66 (12.8)	449 (87.2)	515 (100.0)

Non-EP = Without Endometrial polyp, EP = Endometrial polyp.

p = 0.755

Table 3. Contraception with endometrial polyp

Contraceptive Method	EP No. (%)	Non- EP No. (%)	Total (%)
OCP	3 (7.3)	38 (92.7)	41 (100.0)
DMPA	2 (10.0)	18 (90.0)	20 (100.0)
Non- hormonal contraceptive	48 (13.9)	297 (86.1)	345 (100.0)
Total	53 (13.1)	353 (86.9)	406 (100.0)

EP = Endometrial polyp, OCP = Oral contraceptive pill,

DMPA = Depo-medroxy progesterone acetate, p = 0.454

Table 4. Hormone replacement therapy with endometrial polyp

	EP No. (%)	Non-EP No. (%)	Total (%)
HRT	5 (31.2)	11 (68.8)	16 (100.0)
None HRT	6 (7.1)	79 (92.9)	85 (100.0)
Total	11 (10.9)	90 (89.1)	101 (100.0)

EP = Endometrial polyp, HRT = Hormone replacement therapy, p = 0.004

Discussion

The prevalence of endometrial polyp in women with abnormal uterine bleeding was 12.8%. It was diagnosed in 13.0% of premenopausal patients and 11.9% of postmenopausal patients. The prevalence of EP in this study was higher than that reported by Dreisler E, et al⁽²⁾ (7.8%), while 3.7% and 5.7% of patients at reproductive aged and menopausal age presented with abnormal uterine bleeding and endometrial polyp, respectively. This may be due to the fact that their study group included patients both with and without abnormal uterine bleeding. However, others^(9,15) reported prevalence of endometrial polyp in premenopausal women with abnormal uterine bleeding as 32.5%-42.3%. In this study, the prevalence of EP was lower than other studies^(9,15). This may be due to the fact that hysteroscopy was not performed in every patient. The mean age of the patients in this study was 46.7 years old, similar to the previous studies (40-49 years olds). The prevalence was higher among women aged over 30 years^(2,7). The prevalence of endometrial polyp was not difference between pre- and postmenopausal patients ($p=0.75$). These high prevalence rates in people aged over 40 years may be associated with the high level of estradiol serum in perimenopausal period⁽¹⁶⁾. The most common presenting symptom was hypermenorrhea at 58.2%, which is different from previous reported (51.4 vs 85.7%)⁽⁷⁾. Thus, patients with persistent hypermenorrhea should be further investigation by ultrasonography, sonohysterography or hysteroscopy.

Endometrial polyp may be detected by ultrasonography as a hyperechoic sessile or pedunculated mass in the uterus⁽⁵⁾. This method has the least accuracy because its sensitivity is only 61.2 to 72% and specificity is 50.8 to 90.9%^(3,4,10).

When compared to ultrasonography, hysterosalpingography, has higher sensitivity at 83.7% and specificity at 96.4%⁽³⁾. Furthermore, saline contrast sonohysterography has sensitivity of 91.8% to 97% and specificity of 61.2% to 86%^(1,4,15). Hysteroscopy is currently the gold standard to diagnose EP^(2,10), because it allows us to directly see pathology to collect

tissue sample. Fractional curettage, which is a blind technique, may not be able to diagnose EP in 43 to 85% of cases⁽⁶⁾. It also pick up endometrial polyp in 60% of the uterus^(13,17). Study has demonstrated that the endometrial polyp usually presents at the fundus and cornual of uterus which makes it more difficult get tissue by curettage^(2, 14). However, the number of cases in this study was too small to determine the sensitivity and specificity of ultrasonography in predicting EP.

In conclusion, this study showed that the prevalence of endometrial polyp was 12.8% and can be seen more often in women who have hypermenorrhea pattern with abnormal uterine bleeding (58.2%) and postmenopausal women who use hormone replacement ($P=0.004$). However, this research only looked at patients with abnormal uterine bleeding, while more than 50% of patients do not have symptom⁽¹⁸⁾. Further studies are needed to explain the cause of this condition, its prevention, and relationship with estrogen.

References

1. Wongsawaeng W. Transvaginal ultrasonography, sonohysterography and hysteroscopy for intrauterine pathology in patients with abnormal uterine bleeding. *J Med Assoc Thai* 2005;88 Suppl 3:S77-81.
2. Dreisler E, Stampe Sorensen S, Ibsen PH, Lose G. Prevalence of endometrial polyps and abnormal uterine bleeding in a Danish population aged 20-74 years. *Ultrasound Obstet Gynecol* 2009;33:102-8.
3. Botsis D PV, Makrakis E, Aravantinos L, Creatsas G. Sonohysterography is superior to transvaginal sonography for the diagnostic approach of irregular uterine bleeding in women of reproductive age. *J Clin Ultrasound* 2006;34:434-9.
4. Cepni I, Ocal P, Erkan S, Saricali FS, Akbas H, Demirkiran F, et al. Comparison of transvaginal sonography, saline infusion sonography and hysteroscopy in the evaluation of uterine cavity pathologies. *Aust N Z J Obstet Gynaecol* 2005;45:30-5.
5. PJA H. Novak's Gynecology. 13ed Jonathan S. Berek M M, editor.: Library of Congress Cataloging in Publication Data; 2002.
6. Lieng M, Qvigstad E, Sandvik L, Jorgensen H, Langebrekke A, Istre O. Hysteroscopic resection of symptomatic and asymptomatic endometrial polyps. *J Minim Invasive Gynecol* 2007;14:189-94.
7. Van Bogaert LJ. Clinicopathologic findings in endometrial polyps. *Obstet Gynecol* 1988;71:771-3.

8. DeWaay DJ, Syrop CH, Nygaard IE, Davis WA, Van Voorhis BJ. Natural history of uterine polyps and leiomyomata. *Obstet Gynecol* 2002;100:3-7.
9. Preutthipan S, Herabutya Y. Hysteroscopic polypectomy in 240 premenopausal and postmenopausal women. *Fertil Steril* 2005;83:705-9.
10. Dreisler E, Sorensen SS, Ibsen PH, Lose G. Value of endometrial thickness measurement for diagnosing focal intrauterine pathology in women without abnormal uterine bleeding. *Ultrasound Obstet Gynecol* 2009;33:344-8.
11. Antunes A, Jr., Costa-Paiva L, Arthuso M, Costa JV, Pinto-Neto AM. Endometrial polyps in pre- and postmenopausal women: factors associated with malignancy. *Maturitas* 2007;20;57:415-21.
12. Ben-Arie A, Goldchmit C, Laviv Y, Levy R, Caspi B, Huszar M, et al. The malignant potential of endometrial polyps. *Eur J Obstet Gynecol Reprod Biol.* 2004;10;115:206-10.
13. Stock RJ, Kanbour A. Prehysterectomy curettage. *Obstet Gynecol.* 1975;45:537-41.
14. Peterson WF, Novak ER. Endometrial polyps. *Obstet Gynecol.* 1956;8:40-9.
15. Clevenger-Hoeft M, Syrop CH, Stovall DW, Van Voorhis BJ. Sonohysterography in premenopausal women with and without abnormal bleeding. *Obstet Gynecol* 1999;94:516-20.
16. Prior JC. Perimenopause: the complex endocrinology of the menopausal transition. *Endocr Rev* 1998;19:397-428.
17. Gebauer G, Hafner A, Siebzehrubel E, Lang N. Role of hysteroscopy in detection and extraction of endometrial polyps: results of a prospective study. *Am J Obstet Gynecol* 2001;184:59-63.
18. Leonor santos SC NA. Case report of malignant endometrial polyps. *Gynecologic Surgery* 2007;4:127-9.

ความชุกและรูปแบบเลือดออกผิดปกติจากโพรงมดลูกของสตรีที่เป็นติ่งเนื้อเยื่อบุมดลูก ในโรงพยาบาล มหาราชนครเชียงใหม่

ศศิญา เมธาธราธิป, ทวีวัน พันธศรี, โอบาส เศรษฐบุตร, สุรพันธ์ คุณอมรพงศ์, สุมาลี ศิริอังกุล

วัตถุประสงค์ : เพื่อศึกษาความชุกและรูปแบบเลือดออกผิดปกติจากโพรงมดลูกของสตรีที่มีติ่งเนื้อเยื่อบุมดลูก

วัสดุและวิธีการ : ศึกษาย้อนหลังจากเวชระเบียนของสตรีที่มาตรวจด้วยเรื่องเลือดออกผิดปกติจากโพรงมดลูก ที่เข้ารับการรักษาที่แผนกผู้ป่วยนอกนรีเวช คณะแพทยศาสตร์มหาวิทยาลัยเชียงใหม่ ตั้งแต่วันที่ 1 มกราคม พ.ศ.2549 - 31 ธันวาคม พ.ศ.2551 และได้รับการพิจารณาให้ตรวจค้นเพิ่มเติมโดยตรวจชิ้นเนื้อ

ผลการศึกษา : ความชุกของติ่งเนื้อเยื่อบุมดลูกในผู้ป่วยที่มีเลือดออกผิดปกติจากโพรงมดลูกร้อยละ 12.8 โดยมีอายุเฉลี่ย 46.7 ปี (30-69 ปี) ทั้งนี้พบว่าอายุ ภาวะวัยเจริญพันธุ์ และชนิดของการคุมกำเนิดของผู้ป่วยที่มีติ่งเนื้อเยื่อบุมดลูก ไม่แตกต่างจากกลุ่มอื่น ($p=0.78, 0.75$ และ 0.45 ตามลำดับ) แต่ผู้ป่วยที่อยู่ในวัยหมดประจำเดือน และได้รับฮอร์โมนทดแทน มีโอกาสที่จะพบติ่งเนื้อเยื่อบุมดลูกมากกว่า กลุ่มที่ไม่ได้รับฮอร์โมนอย่างมีนัยสำคัญ (ร้อยละ 31.2 เทียบกับร้อยละ 7.1, $p=0.004$) รูปแบบเลือดออกผิดปกติจากโพรงมดลูกของสตรีที่มีติ่งเนื้อเยื่อบุมดลูกที่พบบ่อยคือ hyper menorrhea (ร้อยละ 58.2)

สรุป : ในการวิจัยนี้พบว่าความชุกของติ่งเนื้อเยื่อบุมดลูก ร้อยละ 12.8 ไม่มีความแตกต่างกันในกลุ่มผู้ป่วยที่จำแนกตามภาวะเจริญพันธุ์ รวมทั้งปัจจัยด้านการคุมกำเนิด และอายุ แต่พบได้มากขึ้นในสตรีที่มีเลือดออกผิดปกติทางช่องคลอด ที่มาด้วยอาการประจำเดือนมามากและมานาน รวมถึงผู้ใช้ฮอร์โมนทดแทนในวัยหมดประจำเดือน

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