

# Is transvaginal ultrasound an appropriate screening tool for endometrial cancer in asymptomatic postmenopausal women? A case report

Ibrahim A. Abdelazim<sup>1,2</sup>, Mohannad AbuFaza<sup>2</sup>, Yerbol Bekmukhambetov<sup>3</sup>, Gulmira Zhurabekova<sup>4</sup>

<sup>1</sup>Department of Obstetrics and Gynecology, Ain Shams University, Cairo, Egypt, <sup>2</sup>Department of Obstetrics and Gynecology, Ahmadi Hospital, Kuwait Oil Company (KOC), Ahmadi, Kuwait, <sup>3</sup>Department of Oncology, West Kazakhstan Marat Ospanov Medical University, Aktobe, Kazakhstan, <sup>4</sup>Department of Normal and Topographic Anatomy, West Kazakhstan Marat Ospanov Medical University, Aktobe, Kazakhstan

### ABSTRACT

A 55-years-old woman menopausal for the last 6 years discovered to have an endometrial thickness (ET) >12 mm (suspected endometrial polyp) during routine evaluation in the gynaecology clinic using the transvaginal ultrasound (TVS). Departmental ultrasound confirmed the same TVS findings and suggested the presence of endometrial polyp as the main cause of the ET. Based upon the patient's risk factors (diabetic, hypertensive, obese with family history of endometrial cancer), a departmental decision was taken to proceed for diagnostic hysteroscopy and polypectomy after informed written consent. Large endometrial polyp and submucosal fibroid were found and excised during hysteroscopy. The histopathological results confirmed the intraoperative diagnosis of the endometrial polyp and submucosal fibroid. This report supports the American College of Obstetricians and Gynecologists recommendations and highlights that the TVS is not an appropriate screening tool for asymptomatic postmenopausal women. In addition, the ET >4 mm in asymptomatic postmenopausal women does not need evaluation.

**Keywords:** Asymptomatic, endometrial cancer, postmenopausal, screening, TVS

### Introduction

Transvaginal ultrasonography (TVS) is an initial evaluation tool in postmenopausal bleeding. Endometrial thickness (ET) ≤4 mm by the TVS has >99% negative predictive value (NPV) for endometrial cancer.

TVS is the initial screening tool and a reasonable alternative to endometrial sampling in the initial episode of postmenopausal bleeding.<sup>[1-3]</sup>

**Address for correspondence:** Dr. Ibrahim A. Abdelazim, Department of Obstetrics and Gynecology, Ain Shams University, Cairo, Egypt and Ahmadi Hospital, Kuwait Oil Company (KOC), Kuwait, P.O. Box: 9758, Ahmadi—61008, Kuwait.  
E-mail: dr.ibrahimanwar@gmail.com

Received: 30-11-2019

Revised: 21-01-2020

Accepted: 24-01-2020

Published: 28-02-2020

#### Access this article online

##### Quick Response Code:



Website:  
www.jfmpc.com

DOI:  
10.4103/jfmpc.jfmpc\_1085\_19

Hysteroscopy is a reasonable evaluating tool in postmenopausal women with recurrent attacks of bleeding.<sup>[1-3]</sup>

ET >4 mm incidentally discovered in a postmenopausal patient without bleeding does not need evaluation, unless the patient's risk factors necessitate this evaluation.

### Case Report

A 55-years-old woman menopausal for the last 6 years discovered to have ET >12 mm (suspected endometrial polyp) during routine evaluation in the gynaecology clinic of Ahmadi hospital, Kuwait Oil Company (KOC), Kuwait, using the TVS.

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

For reprints contact: reprints@medknow.com

**How to cite this article:** Abdelazim IA, AbuFaza M, Bekmukhambetov Y, Zhurabekova G. Is transvaginal ultrasound an appropriate screening tool for endometrial cancer in asymptomatic postmenopausal women? A case report. J Family Med Prim Care 2020;9:1257-9.

Departmental ultrasound confirmed the same TVS findings and suggested the presence of endometrial polyp as the main cause of the ET.

The case was discussed in the departmental meeting and based upon the patient's risk factors (diabetic, hypertensive, obese with family history of endometrial cancer), a departmental decision was taken to proceed for diagnostic hysteroscopy<sup>[1]</sup> and polypectomy after counselling and informed written consent.

After counselling and obtaining the required consent, the anaesthesia consultant reviewed the preoperative investigation (all were normal) of the studied woman and she was booked for the hysteroscopy procedure.

During hysteroscopy evaluation of the uterine cavity; a large endometrial polyp [Figure 1] and submucosal fibroid [Figure 2] were found, excised [Figure 3] and sent for histopathological examination.

The histopathological results confirmed the intraoperative diagnosis of endometrial polyp and submucosal fibroid.

The studied woman discharged from the hospital the next day after the hysteroscopy procedure in good general condition for follow up in the outpatients' clinic.

Written consent from the studied woman and departmental approval were taken to publish the studied woman data as a case report.

## Discussion

American College of Obstetricians and Gynecologists (ACOG) found that TVS is not an appropriate screening tool for endometrial cancer in asymptomatic postmenopausal women.<sup>[1]</sup>

Fleischer *et al.* screened asymptomatic postmenopausal women (1,750 women included) and found that ET  $\leq 6$  mm had 99.94% NPV for excluding malignancy.<sup>[4]</sup>

In addition, Lev-Sagie *et al.* studied 82 asymptomatic postmenopausal women with incidental ultrasound findings of ET (suspected endometrial polyp) and they found a benign polyp in 68, submucosal myoma in 7, atrophic endometrium in 6 and proliferative endometrium in 1.<sup>[5]</sup>

In a retrospective multicentre trial, 1,152 polyps were removed from asymptomatic postmenopausal women, diagnosed by sonohysterography and one case of stage 1 grade 1 endometrial carcinoma was reported.<sup>[6]</sup>

Dimitriu *et al.* concluded that although the hysteroscopy is the gold standard procedure for uterine cavity assessment, the uterus can be expanded with saline during TVS in saline infusion sonography (SIS) or in saline hysterosalpingography (SHS) to improve the detection of intrauterine lesions.<sup>[7]</sup>

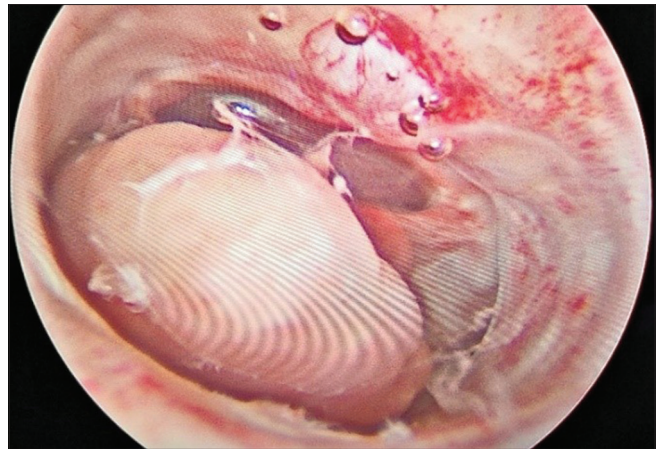


Figure 1: Hysteroscopic image of the endometrial polyp

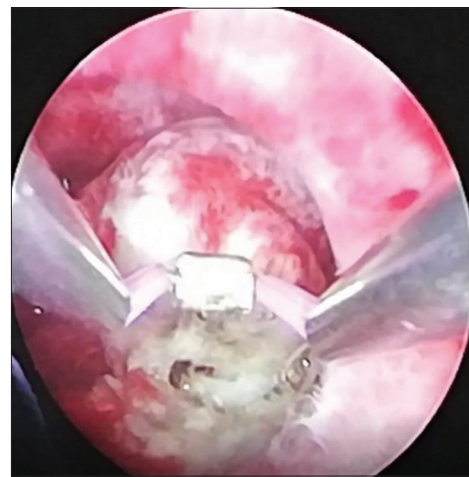


Figure 2: Hysteroscopic image of the submucosal fibroid during excision



Figure 3: Hysteroscopic excised endometrial polyp (4 × 1.2 cm) and submucosal fibroid (1.5 × 1 cm)

Moradan *et al.* concluded that the SIS is a proper method for detecting endometrial focal lesion including polyps and myomas.<sup>[8]</sup>

In addition, Nijkang *et al.* concluded that the SIS or SHG is the gold standard for diagnosing endometrial polyps enabling the viewing size, location and other features of the polyps.<sup>[9]</sup>

The studied case discovered incidentally to have a thick endometrial line (suspected polyp) and found to have an endometrial polyp and submucosal fibroid excised during hysteroscopy and went home in good general condition.

### Conclusion

This report supports the ACOG recommendations and highlights that TVS is not an appropriate screening tool for asymptomatic postmenopausal women and the ET >4 mm in asymptomatic postmenopausal women do not need evaluation. This report suggests the use of SIS or SHS to improve the detection of intrauterine lesions in asymptomatic postmenopausal woman with thick endometrial lines before hysteroscopy.

### Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

### Acknowledgements

Authors are grateful to the studied woman for their consent and approval to publish the data for publication as a case report.

### Financial support and sponsorship

Nil.

### Conflicts of interest

There are no conflicts of interest.

### References

1. ACOG Committee Opinion No. 734: The role of transvaginal ultrasonography in evaluating the endometrium of women with postmenopausal bleeding. *Obstet Gynecol* 2018;131:e124-9.
2. Abdelazim IA, Abdelrazak KM, Elbiaa AA, Al-Kadi M, Yehia AH. Accuracy of endometrial sampling compared to conventional dilatation and curettage in women with abnormal uterine bleeding. *Arch Gynecol Obstet* 2015;291:1121-6.
3. Abdelazim IA, Aboelezz A, Abdulkareem AF. Pipelle endometrial sampling versus conventional dilatation and curettage in patients with abnormal uterine bleeding. *J Turk Ger Gynecol Assoc* 2013;14:1-5.
4. Fleischer AC, Wheeler JE, Lindsay I, Hendrix SL, Grabill S, Kravitz B, *et al.* An assessment of the value of ultrasonographic screening for endometrial disease in postmenopausal women without symptoms. *Am J Obstet Gynecol* 2001;184:70-5.
5. Lev-Sagie A, Hamani Y, Imbar T, Hurwitz A, Lavy Y. The significance of intrauterine lesions detected by ultrasound in asymptomatic postmenopausal patients. *BJOG* 2005;112:379-81.
6. Ferrazzi E, Zupi E, Leone FP, Savelli L, Omodei U, Moscarini M, *et al.* How often are endometrial polyps malignant in asymptomatic postmenopausal women? A multicenter study. *Am J Obstet Gynecol* 2009;200:235.e1-6.
7. Dimitriu G, Abdelazim I, Svetlana S, Zhurabekova G, Alrbeihat R, Taso O. Saline infusion sonography compared to hysteroscopy for uterine cavity evaluation in abnormal uterine bleeding. *J Obstet Gynecol Investig* 2018;1:35-40.
8. Moradan S, Darzi SN, Ghorbani R. Diagnostic value of saline infusion sonohysterography for detecting endometrial focal lesion. *Pan Afr Med J* 2019;33:211.
9. Nijkang NP, Anderson L, Markham R, Manconi F. Endometrial polyps: Pathogenesis, sequelae and treatment. *SAGE Open Med* 2019;7:2050312119848247.