

Case Report

Multiple endometrial polyps in a pre-menopausal woman-sonographic and elastographic findings with histopathological correlation

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ABSTRACT

We are presenting a case report of a 34 year old female with history of inter-menstrual bleeding PV and Menorrhagia since 6 months with multiple endometrial polyps. Ultrasound and elastography findings are discussed.

Keywords: Endometrial lesions, Elastography, Polyp, Transvaginal sonography

INTRODUCTION

Endometrial polyps are benign focal overgrowths of endometrial tissue, often with variable amounts of vascularity and stroma encased by epithelium. Solitary endometrial polyps are quite common, identified in 13% to 50% of women with dysfunctional uterine bleeding and 10% of asymptomatic patients undergoing routine sonographic imaging. Endometrial polyps usually develop as solitary or rarely multiple soft tissue tumours; which are usually stromal but in some cases composed of hyperplastic endometrium.¹ It is difficult to determine which symptoms actually result from endometrial polyps because they are frequently associated with leiomyomas of the uterus and endometrial hyperplasia. These polyps are usually asymptomatic but may cause nonspecific abnormal uterine bleeding. Standard treatment is hysteroscopic removal to alleviate bleeding symptoms and exclude malignancy.²

CASE HISTORY

A 34-year-old woman, gravida 2, para 2, presented to our hospital with abnormal vaginal bleeding. The patient described it as an intermittent inter-menstrual spotting per vaginum. She also complained of heavy bleeding during

menstruation since a few months. The patient had no associated co-morbidities and there was no history of hormonal or drug therapy.

On clinical examination, no abnormalities were detected. Per-Speculum and Per-Vaginal examination were unremarkable. Clinically diagnosed as a case of dysfunctional uterine bleeding, she was referred to our department for sonographic evaluation of pelvis.

Transvaginal sonography revealed multiple (3) small endometrial soft tissue lesions, largest of size 7x6mm showing a vascular pedicle on colour Doppler, surrounded by fluid in the endometrial cavity (Figure 1). The findings were suggestive of multiple endometrial polyps. Elastography revealed soft colours in polyps indicating benign nature of the lesions (Figure 2). A Tsukuba Score of 3 was assigned owing to the green periphery and blue center indicating the benign nature of the polyps.

Based on sonographic findings, the patient was taken up for hysteroscopic examination which showed that the masses were multiple and originated from the anterior wall of endometrial cavity. The polyp was completely removed with the bipolar cutting loop, and then the base

of the lesion was cauterized. After removal of the polyp, the uterine cavity was normal and the patient was discharged. The postoperative follow-up interval was

unremarkable and the patient did not describe any vaginal bleeding. The pathological diagnosis was confirmed to be multiple small endometrial polyps.



Figure 1: Transvaginal sonography showing multiple endometrial polyps surrounded by fluid in the endometrial cavity, largest one measuring 7.5x6.1mm in size.

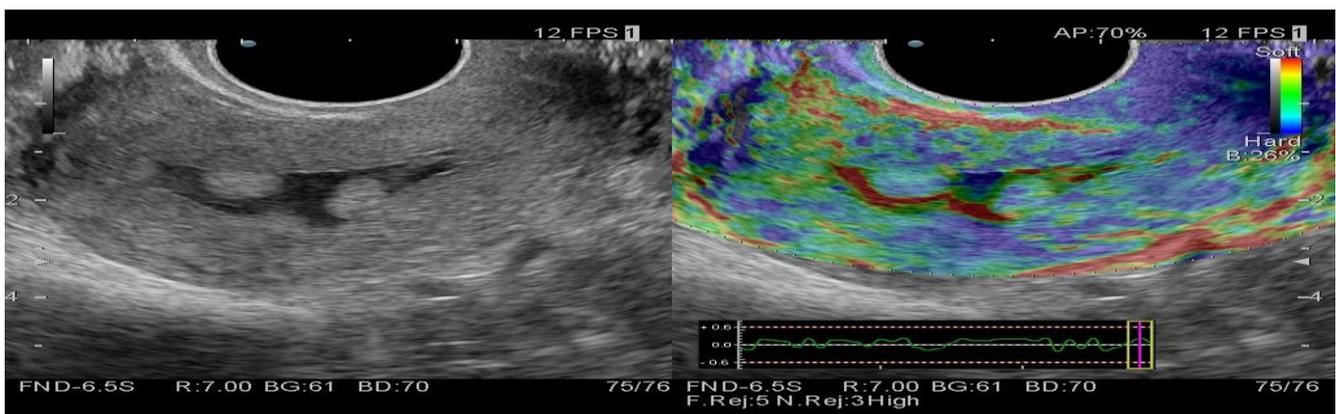


Figure 2: TVS elastography shows soft colours on the polyps i.e. it shows green peripherally with a blue center suggestive of Tsukuba score 3 indicating the benign nature of the lesion.

DISCUSSION

Endometrial polyps are divided into three basic groups according to their response to ovarian hormones. These types include mature functioning polyps, immature non-functioning polyps and non-functioning adenomyomatous polyps. Endometrial polyps are a common cause of bleeding in pre- and post-menopausal women and are difficult to differentiate from other causes of endometrial thickening using transvaginal sonography. The identification of multiple polyps as opposed to a single polyp is useful to the clinician performing subsequent hysteroscopic resection to ensure removal of all masses.³ Typically, patients presenting with dysfunctional uterine bleeding are first assessed by pelvic sonography. Depending on sonographic findings, patients may be referred for further evaluation with saline-infused sono-

hysterography or hysteroscopic removal. The most widely accepted and commonly used sonographic features of a polyp are an echogenic endometrial lesion with a single feeding vessel.⁴

Tsukuba scoring system

In 2006, Itoh et al gave a elastography score for diagnosis of soft tissue masses.

A score of 1 indicated even strain for the entire hypoechoic lesion (i.e., the entire lesion was evenly shaded in green). A score of 2 means strain in most of the hypoechoic lesion, with some areas of no strain (i.e., the hypoechoic lesion had a mosaic pattern of green and blue), A score of 3 implies that strain at the periphery of the hypoechoic lesion, with sparing of the center of the

lesion (i.e., the peripheral part of lesion was green, and the central part was blue). A score of 4 shows no strain in the entire hypoechoic lesion i.e., the entire lesion was blue, but its surrounding area was not included. A score of 5 indicated no strain in the entire hypoechoic lesion or in the surrounding area (i.e., both the entire hypoechoic lesion and its surrounding area were blue). BGR represents typical artifactual three layered aspect (blue-green-red) encountered with cystic lesions. In strain patterns, score 1, 2 and 3 emphasized benign features whereas masses with scores of 4 and 5 were considered as malignant.⁵

The differential diagnosis of the polyps includes malignant pathologies such as uterine embryonal rhabdomyosarcoma, Mullerian Adenosarcoma or Endometrial Adenosarcoma and endometrial lymphoma.⁶

In this case, patient was not on any drugs or oestrogen therapy. Based on the typical findings on TVS and correlating it with Elastography findings, one can make a confident diagnosis of an endometrial polyp without resorting to imaging modalities like MRI and can also single-handedly guide the management of the patient.

CONCLUSION

Transvaginal Sonography proves to be the most essential tool in evaluation of endometrial polyps and for preliminary evaluation of menstrual disorders. The use of TVS in such type of lesions is considered as the foremost and sometimes the only investigation modality as it is highly diagnostic as well as cheap compared to MRI. Elastography using the Tsukuba Scoring System gives us very accurate information regarding the benign or malignant nature and properties of various lesions.

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