

Giant Endometrial Polyp: An Enigma in a Postmenopausal Woman

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ABSTRACT

Giant polyp is an unusual female genital tract pathology, commonly arising from the cervix than the endometrium. It is a great masquerader of cervical or endometrial malignancy and can lead to a diagnostic dilemma and unnecessary aggressive interventions. Experience in one such case of an extremely rare protruding giant endometrial polyp in a 58-year-old postmenopausal female is being described herewith so as to create awareness among the dealing clinicians. The approach to such a case, differential diagnosis, and review of the literature is also presented.

KEYWORDS: *Estrogen, hysteroscopic polypectomy, large endometrial polyp, postmenopausal bleeding, vaginal mass*

INTRODUCTION

Postmenopausal bleeding (PMB) accounts for 5% of the gynecological visits and it is usually seen in up to 10% of women aged over 55 years.^[1,2] This abnormal genital bleeding arises from both the intrauterine as well as extrauterine sources. The most common cause attributed to it is the atrophy of vagina or endometrium owing to the postmenopausal hypoestrogenism.^[3] Nevertheless, several other conditions such as endometrial hyperplasia, cervical/endometrial polyps, submucosal fibroids, tumors of endometrium/cervix/ovaries, bleeding from non-gynecological sites, such as the urethra, bladder, anus/rectum/bowel, or perineum have also been implicated as its important etiologies.^[2] Among the polyps, the uterine or endometrial polyps are benign masses of the endometrium that bulge into the uterine lumen. They can be single or multiple and can appear as pedunculated or sessile.^[4] In rare instances, especially the pedunculated ones can protrude through the cervix into the vagina.^[5,6] Their size ranges from a few millimeters to several centimeters. Most of them are usually <2 cm in diameter, however, polyps can occasionally attain a size of >4 cm and then they are designated as giant polyps.^[7] Most of the giant endometrial polyps reported in the literature are mainly associated with postmenopausal tamoxifen or raloxifene treatment,^[8-12] reflecting that they are affected by the hormone levels and grow in response to the circulating estrogen. These rare giant endometrial polyps are clinically important as they

may cause concern to both the patient and the dealing clinician for the suspicion of a malignancy, especially because of their size and associated clinical symptoms leading to unnecessary diagnostic and therapeutic interventions. Herein is described an extremely rare case of a giant endometrial polyp which protruded out of the external cervical os into the vagina of a postmenopausal woman leading to a diagnostic conundrum.

CASE REPORT

A 58-year-old female, G5 L5, presented to the gynecological outpatient department with lower abdominal pain and bleeding per vaginam since the past 20 days. She gave a history of intermittent PMB of 2 years duration, and recently in the past 6 months, she noticed a mass protruding from the vagina on micturition and defecation. However, until now, she never approached any gynecologist for these complaints. She had five full-term normal vaginal deliveries and had attained menopause 9 years back. She denied any use of drugs especially hormone derivatives, recent intercourse, or vaginal trauma. Her medical history for any major disease or prior surgeries as well as family history of any cancer (breast/uterine/colon/ovarian) was non-contributory. On

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general physical examination, she was anemic and overweight (body mass index-28.6 kg/m²). Per abdomen examination revealed mild tenderness in the lower abdomen with no evidence of ascites or any organomegaly. Per speculum examination showed a hemorrhagic mass which was protruding through the external cervical os into the vagina. The mass was friable and bled on touch. Bimanual pelvic examination revealed anteverted multiparous sized uterus with free bilateral fornices and without palpable adnexal masses. On per rectal examination, the rectal mucosa was free. All other systemic examinations were within normal limits. Her routine hematological investigations revealed microcytic hypochromic blood picture. Urine and blood cultures were negative. Kidney and liver function tests were normal. Cholesterol levels were slightly towards the higher side. Serum antibodies to the human immunodeficiency virus, hepatitis B surface antigen, syphilis were negative. X-ray chest was normal. Transvaginal sonography (TVS) showed heterogeneous irregular endometrium of 20.4 mm thickness. Based on the history, clinical and radiological findings, an endometrial or a cervical malignancy was suspected. An examination under anaesthesia and hysteroscopy was performed. Hysteroscopic examination revealed hyperplastic endometrium with an actively bleeding large polyp which was arising from the posterior uterine wall and extended through the external cervical os into the vagina. Polypectomy was done with the help of hysteroscopic scissors and forceps. Following the complete removal of polyp, dilation, and fractional curettage was done. The obtained tissues were sent in separate containers for histopathological evaluation. Gross examination of the specimen from the container labeled polyp showed a pedunculated polypoidal smooth gray-brown soft-tissue piece which measured 5 cm × 4 cm × 1 cm in size [Figure 1a]. On cut section, multiple variable sized cystic spaces with solid areas and hemorrhage were identified [Figure 1b]. On microscopy, numerous endometrial glands lined by a single layer of flattened epithelium embedded in the fibrous stroma

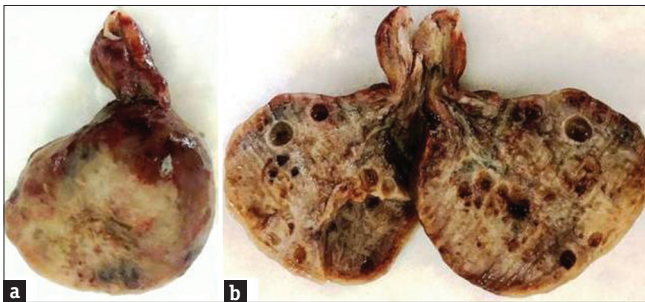


Figure 1: (a) The giant endometrial polyp with a stalk. (b) Multiple solid cystic areas on cut section

were seen. Some of the glands were cystically dilated. No nuclear atypia, mitosis or dysplasia was observed in the glandular epithelium. The stroma exhibited many dilated and thick-walled blood vessels, spindled fibroblast-like cells, and extracellular connective tissue [Figure 2]. Fractional curettage specimen in the other container received on microscopic examination revealed an inactive endometrium with no hyperplasia or atypia and normal cervical tissue. On the basis of these histopathological findings, a final diagnosis of a giant endometrial polyp was made. The postoperative period of the patient was uneventful. She was advised hysterectomy, but she refused to undergo the procedure. On follow-up after 2 weeks, her symptoms completely resolved and there were no fresh complaints.

DISCUSSION

Endometrial polyps are composed of endometrial glands (normal/cystic/hyperplastic), an increased amount of fibrous tissue, and can contain smooth muscle.^[4] According to their response to ovarian hormones, they are divided into three types which are mature functioning polyps, immature non-functioning polyps, and non-functioning adenomyomatous polyps.^[7] These polyps can occur at any age, but most frequently they are seen in women around menopause.^[13] Patients may either be asymptomatic or can present with abnormal bleeding patterns (intermenstrual bleeding, menorrhagia, or PMB) and infertility.^[4] Its prevalence ranges from 10% to 24% in women presenting with dysfunctional uterine bleeding^[14] while it occurs in 24.3% of PMB cases.^[5] The exact pathogenesis of endometrial polyps still remains unclear. Researchers have documented its causative link to aging, bcl-2 expression, obesity, tamoxifen

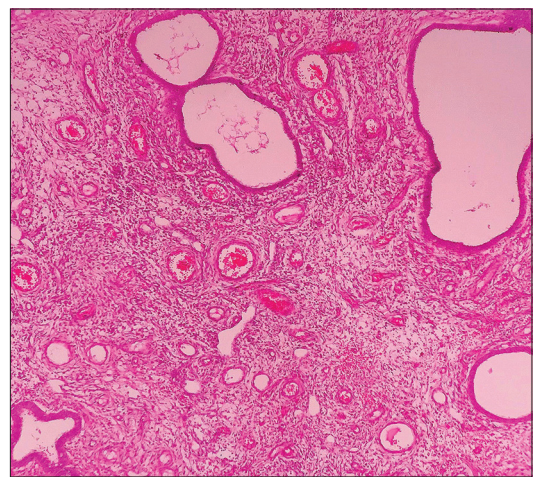


Figure 2: Histopathological section showing cystic endometrial glands embedded in fibrous stroma with the characteristic dilated thick walled blood vessels interspersed between the glandular structures (H and E, ×200)

therapy, hypertension, unbalanced estrogen receptors and progestins, unopposed estrogen therapy, and estrogen-like effect.^[13,15] However, many molecular mechanisms have also been proposed to play a crucial role in its development. These include endometrial aromatase overexpression, inhibition of apoptosis, gene mutations, and cellular mechanisms linked with inflammation.^[16-18]

Giant endometrial polyps, as seen in the present case study, are exceedingly rare variants of classical polyps. According to the pertinent world literature, there are <15 cases of giant endometrial polyps which have been reported so far^[5,6,8-12,19-23] and a very small number have been documented from India.^[20,21] On reviewing the handful of cases mentioned till date, various clinicopathological features of this rare entity draws the attention. These giant endometrial polyps are mainly seen in Turkish origin postmenopausal women with associated conditions such as obesity, heart ailments, and diabetes mellitus. The most common presenting symptom is vaginal bleeding and only a few of them presented with an introital mass.^[5,6,9,21-23] The polyp size varied from 4.5–12 cm in its greatest dimension. Maximum of the cases developed with the use of selective estrogen receptor modulators such as tamoxifen or raloxifene or a phytoestrogen (thyme).^[8-12,19] Nevertheless, few asymptomatic cases without any drug/hormone use or vaginal bleeding have also been documented.^[19-22] TVS has been the first line of investigation in most of the cases. The patients have been managed equally by both the hysteroscopic polypectomy and total abdominal hysterectomy with or without bilateral salpingo-oophorectomy. The histopathological examination of the resected specimens was performed in all the cases which revealed no hyperplasia, atypia or malignancy in maximum cases.

In the current patient, the polyp developed spontaneously in an overweight female and presented as PMB with a mass which was protruding out of the cervix into the vagina. The TVS revealed a 20.4 mm thick endometrium. All these clinico-radiological findings lead to a suspicion of malignancy and warranted further evaluation of the patient. In the literature, most of the cases of giant polyps protruding out of the external cervical os are endocervical in origin as polyps which arise from the endometrium are usually contained within the uterine cavity. Rarely, like in the present case, the giant endometrial polyp can protrude through the external cervical os. In such a situation, the main differential diagnosis of the protruding polyps from the external cervical os is the malignancies such as cervical squamous cell carcinoma, cervical embryonal rhabdomyosarcoma, mullerian adenocarcinoma,

endocervical or endometrial adenocarcinoma, and cervical lymphoma.^[5] Nevertheless, 10%–25% of the symptomatic giant endometrial polyps may contain hyperplastic foci while the risk of its malignant transformation has been observed in about 0%–12.9% cases.^[14,24] Several factors have been linked to malignancy arising within the polyp such as advanced age, menopausal status, obesity, diabetes, arterial hypertension, use of tamoxifen, and large size of the polyp.^[16,17,25,26]

Therefore, the basis for removing these protruding polyps followed by histopathological examination is not only for symptomatic relief of the patient, suspicion of malignancy but it is also for assessing the polyps own malignant potential. Hysteroscopic polypectomy remains the mainstay for the operative management and histopathological evaluation of giant endometrial polyps because of the minimal morbidity associated with it as compared to a hysterectomy. The blind curettage is unsuccessful in many cases in terms of incomplete removal of the polyp, therefore, it should not be used as a diagnostic or therapeutic intervention.^[17]

CONCLUSION

Giant endometrial polyp is a rare entity which should be kept in mind while dealing with PMB cases having a vaginal mass irrespective of any hormonal therapy as they can develop spontaneously and can mimic as an endometrial or a cervical malignancy. The assessment of such patients should include a detailed history, complete abdominal/pelvic and speculum examinations along with identification of its risk factors. Hysteroscopy is quite beneficial in the differential diagnosis, but the histopathological examination is mandatory for its definitive diagnosis. However, more insight and exploration is required of the factors involved in its pathogenesis and for determining its oncogenic potential in near future.

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.

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Conflicts of interest

There are no conflicts of interest.

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