

GIANT ENDOMETRIAL POLYPS- A CASE SERIES

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ABSTRACT

Endometrial polyps are localized overgrowth of endometrial glands and stroma through the uterine cavity, that are commonly associated with postmenopausal bleeding, infertility and menorrhagia. Several cases have been described in the literature that usually develops secondary to tamoxifen use or by unbalanced estrogen therapy. The polyps commonly do not extend from the external cervical os, and can mimic endocervical polyp or cervical neoplasia if seen protruding. Giant polyps originating from the uterine cavity and protruding from the cervical os are rare entity. However, we report three cases diagnosed at our centre with giant endometrial polyp presenting with varied symptoms, thus being the first case series to be done on giant endometrial polyps. Diagnosis, management and outcome of this rare entity have been discussed according to the literature.

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INTRODUCTION

Endometrial polyps are localized overgrowths of endometrial tissue composed of variable amount of glands, stroma, and blood vessels covered by epithelium. Endometrial polyps commonly presents as vaginal bleeding in pre- and postmenopausal women [1]. The most common size is less than 2 cm, however, polyps greater than 4 cm are called giant polyps [2]. Endometrial polyps are most frequently seen in multiparous women and there removal is generally performed by hysteroscopic polypectomy [2,3]. Giant polyps usually occur secondary to high estrogen levels or tamoxifen therapy after breast cancer [4,5]. Polyps originating from the endocervix are called endocervical polyps [2]. Although giant endometrial polyps, which fill the endometrial cavity, or protruding endocervical polyps with a size greater than 4 cm are published in several cases, endometrial giant polyp rising to the cervix are very rare [5]. In this case series, which is first to be reported in literature, we describe three cases of giant endometrial polyp, which differ in their presentation, diagnosed over a period of one year (2016-2017) at Manchanda's Endoscopic centre, PSRI hospital, New Delhi. The clinical, radiological, hysteroscopic and histopathologic data of this entity have been discussed according to the literature.

Case Report

Case 1

A 48-year-old woman, para 4, presented to our hospital with abnormal vaginal bleeding.

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The patient described heavy vaginal bleeding during menses alongwith intermenstrual bleeding. On clinical examination, a painless mass was palpated intra vaginally. On vaginal speculum examination, a vascularized, hemorrhagic mass protruding from the external cervical os was seen. Transvaginal sonography revealed endometrial thicknesses of 18 mm, which did not correlate with patient's menstrual cycle. The clinical findings and transvaginal sonographic examination suggested an endometrial or cervical growth or carcinoma. Patient was planned for hysteroscopic guided biopsy.

Hysteroscopy was performed with 2.9 mm office hysteroscope (Karl Storz, Tuttingen, Germany).



Fig 1 Hysteroscopic examination showed a mass originating from the anterior wall of uterine cavity that extended to the external cervical os and protruded into the vagina

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The uterine cavity was distended with normal saline with a pressure of 80 mmHg. On hysteroscopy, in cervical canal polyp was seen. With difficulty uterine cavity was entered. In the uterine cavity, there was hyperplastic endometrium with large polyp of size 9 cm arising from the anterior wall of uterus on right side, extending to the external cervical os. [Fig-1].

Polypectomy was done with the help of scissors and obtained tissue was sent for histopathological evaluation [fig 2].

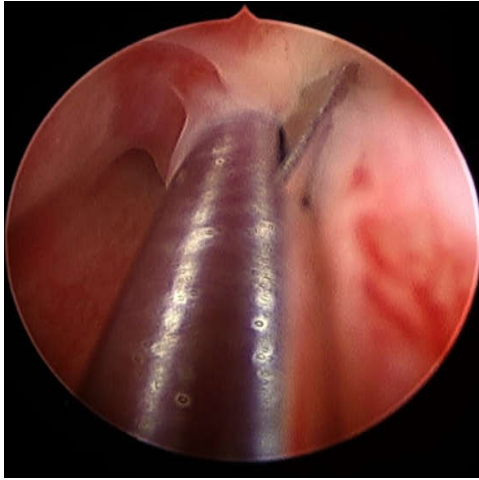


Fig 2 Hysteroscopic view showing polyp being cut with help of scissors.

After removal of the polyp, the uterine cavity was normal. No bleeding was noted from the base of the polyp [fig 3]. The patient was discharged after 6 hours of surgery. The postoperative interval was unremarkable and the patient did not have any complaints on follow up.



Fig 3 Macroscopic appearance of the giant polyp measuring 9x2.5x3 cm.

The pathological diagnosis confirmed it to be a giant endometrial polyp with a size of 9 x2.5x 3 cm [Fig-4].

Microscopic, report showed widely spaced cystic endometrial glands lined by metaplastic ciliated columnar epithelium. The stroma showed interstitial hemorrhage and scattered lymphocytes. No nuclear or cytological atypia were noted. No sign of dysplasia or neoplasia was observed in the glandular or metaplastic epithelium.

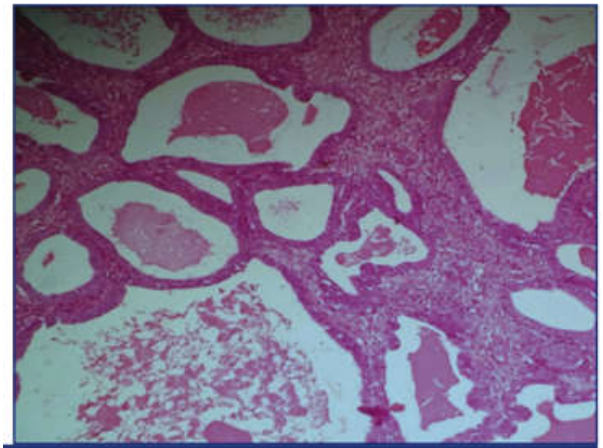


Fig 4 Microscopically, glands of various sizes and irregular shapes are seen with cystic dilatation & epithelium

Patient maintained follow up and was relieved of her menorrhagia in consecutive cycles.

Case 2

A 65-year-old, postmenopausal female P3L2 with hypertension and DM came for routine health check up. There was no history of any drug use, especially hormone derivatives. Her physical and per abdominal examination was normal. On pelvic examination uterus was multiparous sized, mid positioned and bilateral fornices were free. On USG her endometrial thickness showed up as 12.3 mm. Patient was planned for hysteroscopic guided biopsy.

Hysteroscopy was performed with 2.9 mm of ce hysteroscope. The uterine cavity was distended with normal saline with a pressure of 80 mmHg. On hysteroscopy, in cervical canal dense adhesions were present; adhesiolysis was done for the same [Table/Fig-1]. In the uterine cavity, there was hyperplastic endometrium with large polyp of size 8.5 cm arising from the junction of left lateral and posterior wall of uterus [Fig-5].

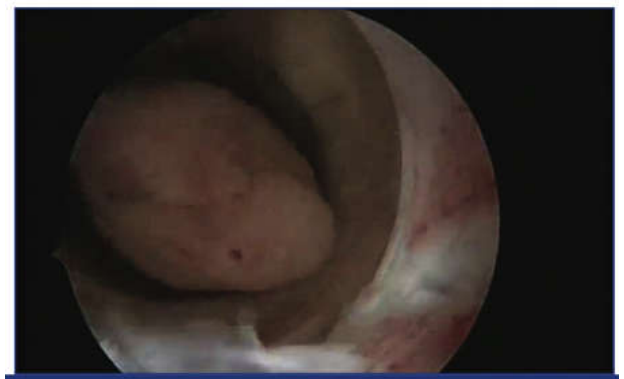


Fig 5 Hysteroscopic examination showed a mass originating from the junction of left lateral and posterior wall.

Polypectomy was done with the help of scissors and forceps and obtained tissue was sent for histopathological evaluation. After removal of the polyp, the uterine cavity was normal. The patient was discharged after 6 hours of surgery. The postoperative interval was unremarkable and the patient did not have any complaints on follow up.

The pathological diagnosis confirmed it to be a giant endometrial polyp with a size of 8.5x1.5 cm [Fig-6].



Fig 6 Macroscopic appearance of the giant polyp measuring 8.5x1.5 cm.

Microscopic, report showed cystic changes without atypia. It was composed of multiple endometrial glands embedded in the stroma. No nuclear or cytological atypia were noted. No sign of dysplasia or neoplasia was observed in the glandular or metaplastic epithelium. However, keeping her age, presence of hypertension, DM, obesity & histopathological finding in mind she was advised for total laparoscopic hysterectomy with bilateral salpingo-oophorectomy, though it was not performed as the patient did not consent.

Case 3

A 60 year old, P₅L₅ postmenopausal female with DM with Chronic liver disease presented with postmenopausal bleeding since 1 month. There was no history of any hormone usage. Her physical and per abdominal examination was normal. On pelvic examination uterus was multiparous sized and bilateral fornices were free. On USG her endometrial thickness showed up as 18 mm. Patient was planned for hysteroscopic guided biopsy.

Hysteroscopy was performed with 2.9 mm office hysteroscope. The uterine cavity was distended with normal saline with a pressure of 80 mmHg. On hysteroscopy, cervical canal was normal. In the uterine cavity, there was large endometrial polyp of size 8x4 cm arising in the fundal region of uterus [Fig 7,8].

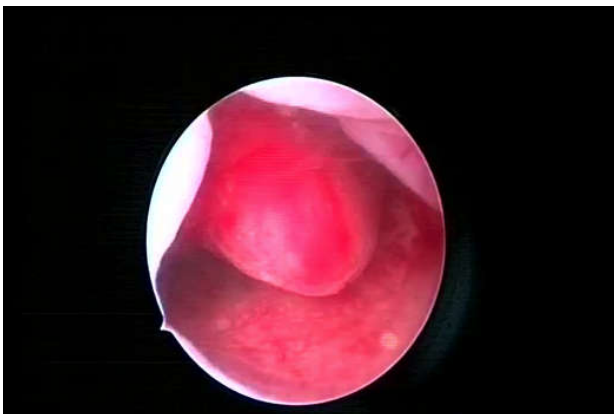


Fig 7 Hysteroscopic examination showed a mass originating from the fundal region

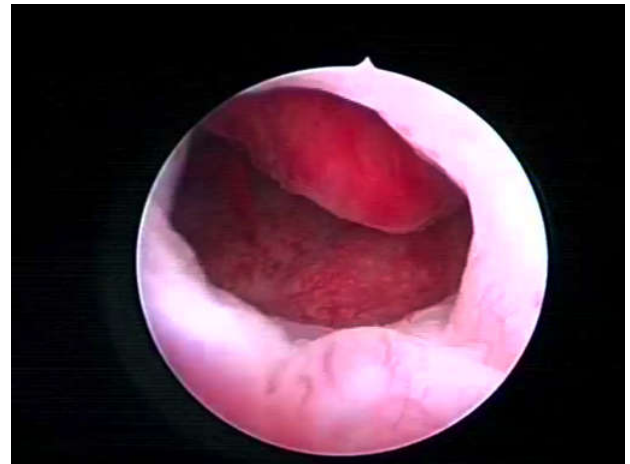


Fig 8 Hysteroscopic examination showed a mass originating from the fundal region occupying entire cavity

Polypectomy was done with the help of scissors and forceps and obtained tissue was sent for histopathological evaluation. After removal of the polyp, the uterine cavity was normal. The patient was discharged after 6 hours of surgery. The postoperative interval was unremarkable and the patient did not have any complaints on follow up.

The pathological diagnosis confirmed it to be a giant endometrial polyp with a size of 8x4 cm [Fig-9].

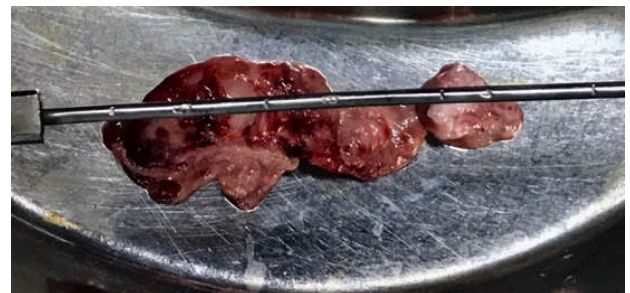


Fig 9 Macroscopic appearance of the giant polyp measuring 8x4 cm.

Microscopic, report showed cystic changes without atypia. No sign of dysplasia or neoplasia was observed in the glandular or metaplastic epithelium. However, keeping her age, presence of DM, obesity & histopathological finding in mind she was advised for total laparoscopic hysterectomy with bilateral salpingo-oophorectomy. Patient underwent the same two weeks after hysteroscopy. Histopathological report showed ????

DISCUSSION

Endometrial polyps are localized overgrowths of endometrial tissue composed of variable amount of glands, stroma and blood vessels covered by epithelium. The stroma of the polyp is composed of fibroblast like spindle cells and large blood vessels with thick walls. The polyp epithelium may be active, pseudostratified and after menopause it can be inactive and flat. Depending on response to ovarian hormones, endometrial polyps are divided into three groups viz., mature functioning polyps, immature non functioning polyps and non functioning adenomyomatous polyps [2].

The development of endometrial polyps has been explained by number of molecular mechanisms such as monoclonal endometrial hyperplasia, over-expression of endometrial aromatase and gene mutations. Polyps have characteristic

cytogenetic rearrangements similar to uterine leiomyoma. Rearrangements in the High-Mobility Group (HMG) family of transcription factors seem to play a role in pathogenesis [6]. Indraccolo U *et al.*, studied the pathogenesis of endometrial polyps and they demonstrated a causative link: ageing, bcl-2 expression, obesity, tamoxifen regardless of timing and unbalanced oestrogen therapy [7].

Endometrial polyps are most frequently seen in multiparous women in the fifth decade. They are common cause of vaginal bleeding in pre and postmenopausal women, affecting 25% of them [8,9]. They are also associated with infertility. Some may be asymptomatic. In postmenopausal women, polyps usually present with bleeding or discharge accounting for 24.3%.

The most common size of polyp is less than 2 cm, and those greater than 4 cm are called giant polyps. Giant endometrial polyps occur with increased frequency secondary to unbalanced oestrogen levels or tamoxifen exposure after breast cancer [2].

The prevalence of malignancy with endometrial polyps is 1–3% [10]. The risk factors of malignancy within polyps are ageing, obesity, arterial hypertension, postmenopausal period, and tamoxifen.

Hormonal factors may be involved as indicated by endometrial abnormalities in patients treated with tamoxifen. Despite being an oestrogen antagonist, tamoxifen has oestrogen agonistic effects on the endometrium. The partial agonistic activity of tamoxifen in postmenopausal women may produce a hormonal environment of low levels of unopposed oestrogen similar to that in perimenopausal woman. In one of our patient, the polyp was asymptomatic and developed spontaneously as the patient was not on tamoxifen or other drugs including hormone replacement treatment.

In the literature, most giant polyps protruding from the external cervical os originated from the cervix and are called endocervical polyps. Other giant polyps which originate from the endometrium but are contained within the uterine cavity are called endometrial polyps. Interestingly in our case series, the polyp originated in the uterine cavity, extended into the cervix and protruded into the external cervical os in one of the cases.

Non-invasive techniques such as transvaginal ultrasonography, with or without the use of 3D ultrasonography and contrast techniques, are considered as the first line for diagnosis. Transvaginal ultrasonography is a routine, non invasive component of investigation. However, with advent of hysteroscopy it has now become choice for diagnosis as well as treatment at the same sitting. On the sonographic examination, 18 mm, 12mm and 18mm thickness of endometrium was seen respectively in our cases, which was suspicious of polyp but could not be confirmed. It was on hysteroscopy, that the diagnosis of endometrial polyp was confirmed.

Histopathological examination must be performed on all resected polyps to rule out endometrial polyps (0.5%–3%) with malignant foci [2]. Lasmar BP *et al.*, reported that endometrial polyps larger than 15 mm are associated with hyperplasia [9] and Wang J *et al.*, identified that polyps measuring more than 10 mm are associated with malignancy

[11]. For the treatment and histologic diagnosis of endometrial polyps, hysteroscopic resection is the most effective method, while blind biopsy and curettage have low diagnostic accuracy and should not be performed.

Table 1 shows various giant polyps reported in literature.

Table 1 Table showing various giant polyps

Author	Size (cm)	Origin	Tamoxifen treatment	Cervical protrusion
Nomikos <i>et al.</i> , [4].	8	Uterus	+	-
Moon <i>et al.</i> , [5]	7	Uterus	+	-
Cil <i>et al.</i> , [10]	8	Uterus	-	+
Unal <i>et al.</i> , [12]	10	Uterus	-	+
Aridogan <i>et al.</i> , [13]	14	Cervix	-	+
Branger <i>et al.</i> , [14]	15	Cervix	-	+
Amesse <i>et al.</i> , [15]	5	Cervix	-	+
Present series Case 1	9			+
Case 2	8.5	Uterus	-	-
Case 3	8			-

CONCLUSION

In summary, the origin and pathogenesis of endometrial polyps have not been fully evaluated and understood. Giant endometrial polyps are rare entities and they are associated with tamoxifen and unbalanced oestrogen levels. Further, a case series on giant endometrial polyp has not yet been reported in literature. For diagnostic and therapeutic management, hysteroscopy is the gold standard whereas blind dilation and curettage is not preferred. Removal for histologic assessment is appropriate in postmenopausal women. In our case series of three giant endometrial polyp originating in uterus, neither tamoxifen nor HRT was used. Hysteroscopic examination alongwith histopathological evaluation provide the definitive diagnosis.

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