Endometrial Carcinoma in Uterine Polyp

Dr. Tahira Yasmeen[1*], Dr. Sobia Tabassum[2], Dr. Sadaf Nasir[3] and Dr. Hanna Naqvi[4]

[1]*Assistant professor, OBGY, Liaquat National Hospital, Karachi*
[2]*Assistant professor, Oncology, Liaquat National Hospital , Karachi*
[3]*Assistant professor, Radiology, Liaquat National Hospital, Karachi*
[4]*Assistant professor, Histopathology, Liaquat National Hospital, Karachi*

Abstract

This is a case of 35 years old female with endometrioid adenocarcinoma in uterine polyp. However, no disease was found in uterus after polypectomy but her irregular per vaginal bleeding persisted even after six months. Hence her completion surgery was done.

Keywords: *Endometrial, carcinoma, polyp.*

CASE PRESENTATION

This is case of 35 years old female known case of polycystic ovarian disease, presented with irregular menstrual bleeding in Damam. Ultrasound showed thickened endometrium with cystic spaces. Endometrial biopsy was done on 16th January 2019 in Damam. Intraoperatively a small polyp was noted in uterus near fundus which was removed completely. Histopathology was reported as moderately differentiated endometrioid adenocarcinoma at the base of polyp.

She was advised total abdominal hysterectomy with bilateral salpingo oophorectomy in Damam. She came here for second opinion. Her MRI pelvis was done which showed no residual disease. Therefore, her repeat hysteroscopy D&C was done at LNH on 9th February 2019. Intraoperatively uterus was normal with smooth and regular endometrium, minimal curettings were obtained. Histopathology was reported as benign proliferative endometrium. Therefore, blocks from initial surgery were retrieved and reviewed by histopathologist at Liaquat National Hospital, which again showed well differentiated endometrioid adenocarcinoma. Case was discussed in tumor board meeting and TAH +BSO was advised as initial disease was noted at the base of polyp. She lost following up for few months.

She presented in September 2019 with complaint of irregular per vaginal bleeding. MRI pelvis was done.

RADIOLOGY DETAILS

MRI pelvis showed thickening of endometrium. Few tiny foci were seen in surrounding myometrium. On post contrast study there was heterogeneous enhancement of endometrium with focal infiltration into adjacent myometrium which was less than half of its width. No endocervical invasion and pelvic lymphadenopathy were noted. Findings are most likely due to endometrial carcinoma (Figs. 1-4).

**Corresponding Author: Dr. Tahira Yasmeen, Assistant professor, OBGY, Liaquat National Hospital, Karachi; Email: tahira315@gmail.com*
Received: October 25, 2019, Accepted: December 16, 2019

CT SCAN CHEST

Lung field appeared normal. Liver parenchyma was normal looking. No retrocaval, paraaortic lymph nodes were noted.

Preoperative Tumor Board Discussion:

Participants included were gynaeoncologist, medical oncologist, radiation oncologist, radiologist, and histopathologist.

According to the preoperative radiological assessment, disease was limited to uterus with no cervical stromal and parametrial involvement. No local and distant metastasis were noted. Therefore, total abdominal hysterectomy with bilateral salpingo oophorectomy with pelvic (iliac and obturator) lymph node sampling was planned.

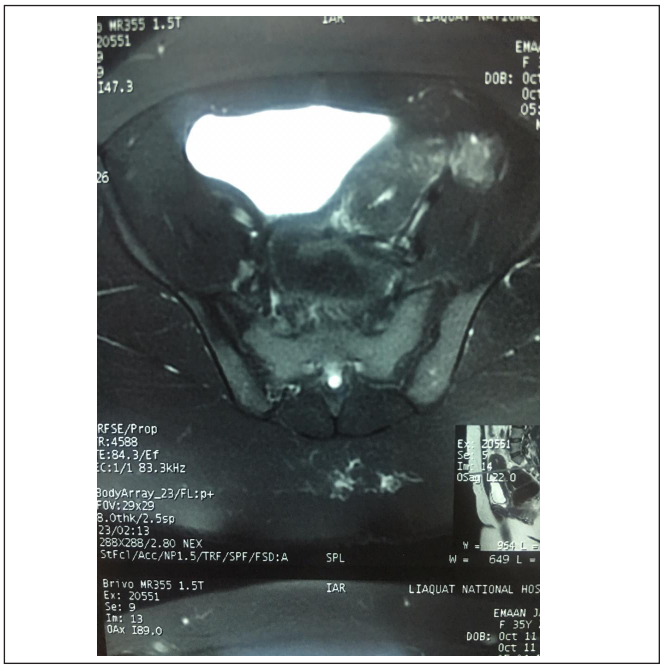

Fig. (1): Thickened endometrium with T2 intermediate signal intensity within it. Few tiny focal T2 high signal intensity foci are seen in surrounding myometrium less than half of its width

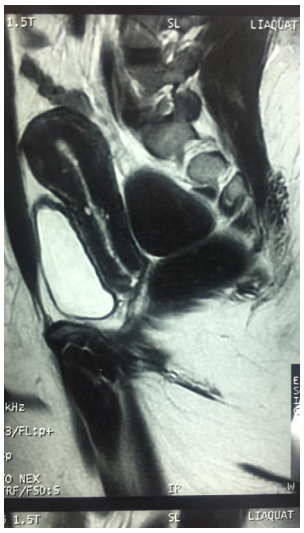

Fig. (2): On post contrast study Noendocervical invasion noted. No pelvic lymphadenopathy noted.

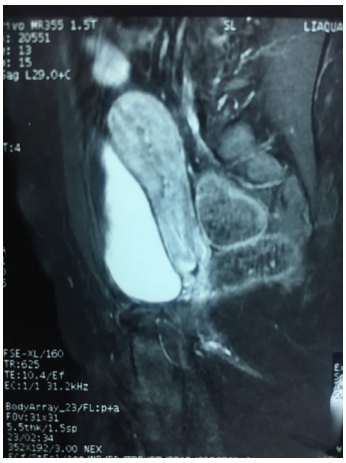

Fig. (3): Both ovaries are normal looking. Urinary bladder appears normal.

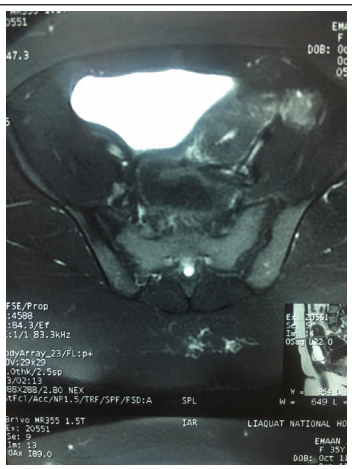

Fig. (4): The ischiorectal fossa appears normal on both sides. No evidence of pelvic lymphadenopathy noted. No distant metastasis noted on CT scan chest and abdomen.

Surgery:

Her total abdominal hysterectomy with bilateral salpingo oophorectomy with pelvic lymph node sampling was done on 15th October, 2019. Peroperatively liver, diaphragm, omentum, small /large bowel were normal looking. Uterus was anteverted normal size with no endocervical invasion on gross examination. No enlarged lymph nodes were noted.

Histopathology:

Multiple sections from endomyometrium were examined. Microscopically showed crowded and back to back glands (**Figs. 5a&b**) with minimal intervening stroma (**Fig. 6**). Glands were irregular and lined by columnar cells with mild to moderate nuclear atypia (**Fig. 7**). There was extensive autolytic artifact noted. No convincing area or cribriforming or myometrial invasion was identified. Sections from the polyp at uterocervical junction were found to be benign. The cervix, bilateral adnexa were unremarkable. Extensive sampling was done from the endomyometrium; however, most of the endometrium was found to be autolyzed. Within the areas of endometrium that were viable, cribriforming

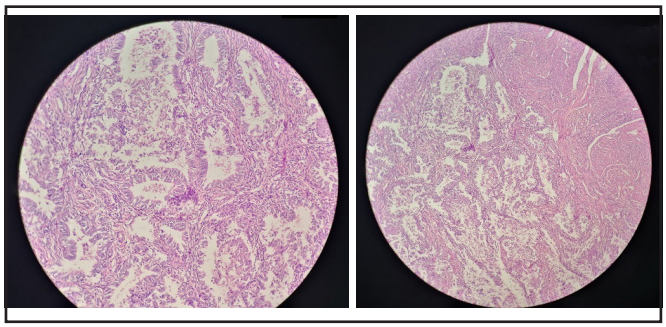

Fig. (5a&b): Kk to back endometrial glands with minimal intervening stroma.

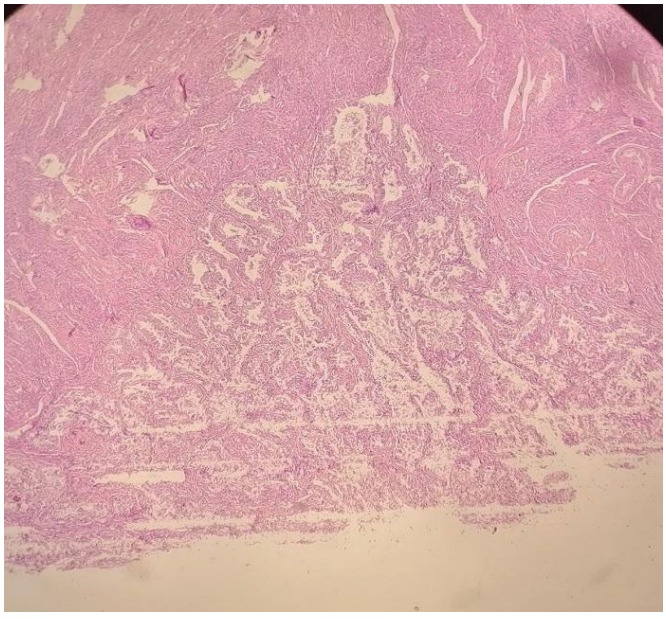

Fig. (6): Endometrial glands show minimal intervening stroma between them.

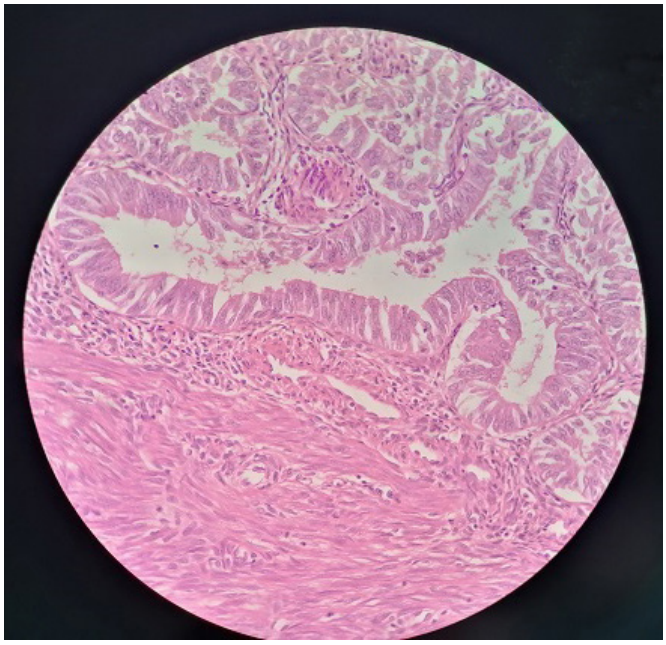

Fig. (7): Endometrial glands showing nuclear atypia.

or loss of stroma between glands was not identified. No evidence of myometrial invasion was seen in the sections examined. Therefore, a diagnosis of complex endometrial hyperplasia was favored as no convincing foci fulfilling the criteria for endometrioid adenocarcinoma were identified. Seven benign right iliac lymph nodes and six benign left iliac lymph nodes and single benign paraaortic lymph node were noted.

Post-Operative Tumor Board Discussion:

Participants included were gynaeoncologist, medical oncologist, radiation oncologist, radiologist, and histopathologist.

As mentioned in histopathology report, a small polyp measuring 1.5 x 0.8cm was seen at the uterocervical junction. The tumor was invading less than half of the myometrial thickness. No endocervical or lymphovascular invasion was identified. Ovaries and lymph nodes were benign.

Early stage endometrial cancers have 95% 5 years survival if appropriately staged and adequately treated. In view of her current histopathology report three monthly physical examination with ca-125 for first 2 years then six monthly for next three years and yearly for five years was planned. Imaging will be done if clinically indicated.

DISCUSSION

Gynaecologist's Perspective:

The most common gynecologic malignancy in the U.S. is endometrial carcinoma and the only gynecologic cancer with increasing incidence and mortality [1]. Among Asians it is the third common gynecological cancers with incidence of 4.3% for all ages and 1.9% mortality among Asians (globocan, 2012) [2]. There will be an estimated 61,880 new cases of endometrial carcinoma and 12,160 deaths from endometrial cancer in 2019 [3]. The incidence of endometrial carcinoma is estimated to increase by 1-2% yearly [4]. Most women are diagnosed at an early stage and have relatively good survival rates; however, women diagnosed with advanced-stage or recurrent disease have a poor prognosis [5]. Treatment options for endometrial cancer vary depending on the grade and the stage of the disease. Currently, the treatment and staging of endometrial carcinoma is primarily surgical, with hysterectomy and bilateral salpingo-oophorectomy being the standard of care. The issue of lymphadenectomy remains under debate, but in the U.S. It is generally performed based on criteria such as grade, depth of invasion, and tumor size. Sentinel lymph node (SLN) sampling has been advocated as an alternative to standard hysterectomy with complete lymphadenectomy. Following surgical treatment, patients may receive adjuvant radiation, chemotherapy, or both, depending on the stage and other pathologic features of their disease [6]. Surgery remains a mainstay of treatment for most women with endometrial cancer. Since 1988, the International Federation of Gynecology and Obstetrics (FIGO) requires that staging of endometrial cancer occurs surgically. Surgery includes hysterectomy with possible removal of fallopian tubes and ovaries bilaterally and consideration of lymph node assessment. There are many nuances involved in the surgical and adjuvant management of patients with endometrial cancer; both the American College of Obstetricians and Gynecologists (ACOG) and the Society of Gynecologic Oncology (SGO) have suggested that patients would benefit most from their surgery being performed by surgeons with training in gynecologic oncology [7].

Oncologist Perspective:

Endometrial carcinoma occurs mainly in post-menopausal women. The average age is around 60 years. It is not common below the age of 45 [8]. Incidence of endometrial cancers in women age 40 or younger ranges between 2% to 14% according to published literature [9]. Risk factor for endometrial cancer is related to increased level of estrogens. It includes early menarche, nulliparity, late menopause, lynch syndrome, age > 55 and Tamoxifen use. Presence of carcinoma in an endometrial polyp is rare and incidence varies in the literature [10, 11]. In a meta-analysis of published prospective and retrospective studies prevalence of malignant polyps was 2.7%. The rates were even lower for premenopausal women (1.12%) than post-menopausal women [12]. In well differentiated endometrioid adenocarcinoma that is limited to endometrium on imaging can be offered fertility preservation in premenopausal patients [13]. In this approach patient is kept on progestin with regular monitoring, and after child bearing or in case of disease progression, has to be proceeded for surgery.

In stage IA disease surveillance includes physical examination every 3-6 months for 2-3 years, then every 6 months to annually. Imaging should be done if there is

clinical indication [14]. 5 years survival rate for localized disease is 96%, and local recurrence rate is 4.8% [15].

REFERENCES

1. Evans T, Sany O, Pearmain P, *et al*. Differential trends in the rising incidence of endometrial cancer by type: data from a UK population-based registry from 1994 to 2006. Br J Cancer 2011; 104(9): 1505-10.
2. Malik TY, Chishti U, Aziz AB, Sheikh I. Comparison of risk factors and survival of Type-I and Type-II Endometrial Cancers. Pak J Med Sci 2016; 32(4): 886-90.
3. Siegel RL, Miller KD, Jemal A. Cancer statistics, 2019. CA Cancer J Clin 2019; 69(1): 7-34.
4. Cancer Facts & Figures 2016. American Cancer Society. Available at: https://www.cancer.org › research › cancer-facts-figures-2016.
5. SEER Stat Fact Sheets: Endometrial Cancer. 2016. Available at: https://seer.cancer.gov› statfacts›html›corp (Accessed on: April 10, 2016).
6. Tran AQ, Gehrig P. Recent Advances in endometrial cancer. F1000Res 2017; 6: 81.
7. Committee on Practice Bulletins. Practice Bulletin No. 149: endometrial cancer. Obstet Gynecol 2015; 125(4): 1006-26.
8. American cancer society 2019. Available at: https://www.cancer.org.
9. Garg K, Soslow RA. Endometrial carcinoma in women aged 40 years and younger. Arch Pathol Lab Med 2014; 138(3): 335-42.
10. Giordano G, Gnetti L, Merisio C, *et al*. Postmenopausal status, hypertension and obesity as risk factors for malignant transformation in endometrial polyps. Maturitas 2007; 56(2): 190-7.
11. Nijkang NP, Anderson L, Markham R, Manconi F. Endometrial polyps: pathogenesis, sequelae and treatment. SAGE Open Med 2019; 7: 2050312119848247.
12. Uglietti A, Buggio L, Farella M, *et al*. The risk of malignancy in uterine polyps: A systematic review and meta-analysis. Eur J Obstet Gynecol Reprod Biol 2019; 237: 48-56.
13. Gunderson CC, Fader AN, Carson KA, *et al*. Oncologic and reproductive outcomes with progestin therapy in women with endometrial hyperplasia and grade 1 adenocarcinoma: a systematic review. Gynecol Oncol 2012; 125(2): 477-82.
14. NCCN guidelines. Endometrial carcinoma. 4th ed. 2019.
15. Sasada S, Yunokawa M, Takehara Y, *et al*. Baseline risk of recurrence in stage I-II endometrial carcinoma. J Gynecol Oncol 2018; 29(1): e9.