ASIAN JOURNAL OF PHARMACEUTICAL AND CLINICAL RESEARCH

INNOVARE ACADEMIC SCIENCES
Knowledge to Innovation

Vol 17, Issue 12, 2024

Online - 2455-3891
Print - 0974-2441

Case Study

ENDOMETRIOID ENDOMETRIAL CARCINOMA: AN INSTITUTIONAL CASE SERIES

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Received: 29 September 2024, Revised and Accepted: 12 November 2024

ABSTRACT

Objective: To present a case series of endometrioid endometrial carcinoma having diverse presentations, histopathological features, and therapeutic modalities.

Methods: A case series of five cases of histopathologically diagnosed endometrioid endometrial carcinoma in a tertiary care center has been presented. Cases were collected over a period of 8 months (April 2017–December 2017).

Results: The ages of the patients ranged from 48 to 67 years. All patients were post-menopausal and one patient was pre-menopausal. In histopathology, there were two cases of grade 1, two cases of grade 3, and a single case of grade 2. FIGO staging of the cancers ranged from stage I to stage IIIc and appropriate therapeutic modalities were used based on grading and staging of the malignancies.

Conclusion: This case series highlights the clinical heterogeneity of endometrioid endometrial carcinoma. Increased education regarding early screening measures of endometrial carcinoma will aid in optimizing prevention and treatment protocols.

Keywords: Endometrioid endometrial carcinoma, Endometrium, Carcinoma.

 DOI: http://dx.doi.org/10.22159/ajpcr.2024v17i12.52818. Journal homepage: https://innovareacademics.in/journals/index.php/ajpcr

INTRODUCTION

Worldwide, endometrial cancer is the seventh most common cancer worldwide. Its age-standardized incidence rate is 8.4/lakh [1]. In developing countries such as India, the SIR is 2.1/100,000 women [1]. However, there has been a steady rise in its incidence in the Indian subcontinent [2]. Bokhman classified endometrial carcinomas as types I and II [3]. Type I is believed to be significantly associated with unopposed estrogen therapy as well as obesity. It is also seen occasionally in anovulatory pre-menopausal women. Type I tumors have a good prognosis and lesions are usually well-differentiated. They usually rise in the setting of endometrial hyperplasias [3]. Type 2 endometrial cancer is less common and accounts for 20% of all cases. It occurs in older post-menopausal and non-obese women and is usually not associated with excess estrogen exposure. They carry a poorer prognosis and arise in atrophic endometrium [3]. Endometrioid carcinoma (most common) and its histologic variants are included in Type 1 endometrial carcinoma; serous carcinoma, clear cell carcinoma, and carcinosarcoma are included in Type 2 [4]. Endometrial carcinoma can have a favorable prognosis in the early stages; however, it presents significant challenges in the advanced stages [5]. This case series highlights five patients diagnosed with endometrioid endometrial carcinoma, focusing on clinical presentation, and treatment modalities contributing to the understanding of this disease's diverse manifestations.

CASE REPORTS

Case 1

A 62-year-old post-menopausal female presented with abnormal vaginal bleeding and pelvic pain. A transvaginal ultrasound revealed a thickened endometrium. Endometrial biopsy confirmed well-differentiated endometrioid endometrial carcinoma. The patient underwent total abdominal hysterectomy with bilateral salpingo-oophorectomy and was staged as FIGO I having <50% myometrial invasion [Figure 1]. Histopathologically carcinoma was of grade 1. Post-operative recovery was uneventful, and she was referred for adjuvant radiotherapy. At 6 months follow-up, she showed no signs of recurrence.

Case 2

A 54-year-old female with a history of obesity and irregular menstrual cycles presented with intermittent bleeding. Imaging showed an endometrial mass. Biopsy revealed moderately differentiated endometrioid endometrial carcinoma. She underwent total abdominal hysterectomy with bilateral salpingo-oophorectomy, and staging revealed FIGO II as the tumor showed invasion into the cervical stroma. The histopathological grade was grade 2 having 6–50% solid growth. The patient received adjuvant chemotherapy and radiotherapy.

Case 3

A 48-year-old nulliparous woman presented with heavy menstrual bleeding and pelvic pressure. Endometrial biopsy diagnosed poorly differentiated endometrioid endometrial carcinoma. Staging revealed FIGO IIIA due to the involvement of adnexal structures [Figure 2]. The tumor grade was grade 3 with greater than 50% solid growth and the presence of extensive desmoplasia. The patient received neoadjuvant chemotherapy followed by surgical debulking and adjuvant radiotherapy.

Case 4

A 67-year-old female with a history of endometrial hyperplasia without atypia (diagnosed 5 years back) presented with post-menopausal bleeding for the preceding 2 months. Biopsy confirmed well-differentiated endometrioid endometrial carcinoma. The patient underwent a total abdominal hysterectomy with bilateral salpingo-oophorectomy and was found to have FIGO I disease. Histopathological grading was found to be grade 1, having <5% solid growth, and the presence of confluent back-to-back arranged tumor cells in a glandular pattern [Figure 3]. She was closely monitored without the need for adjuvant therapy. At 1 year follow-up she was found to be disease free.

Case 5

A 60-year-old female presented with weight loss and abdominal pain. Imaging revealed extensive pelvic disease, and biopsy confirmed poorly differentiated endometrioid endometrial carcinoma. Following radical hysterectomy, staging revealed FIGO IIIC due to para-aortic lymphatic

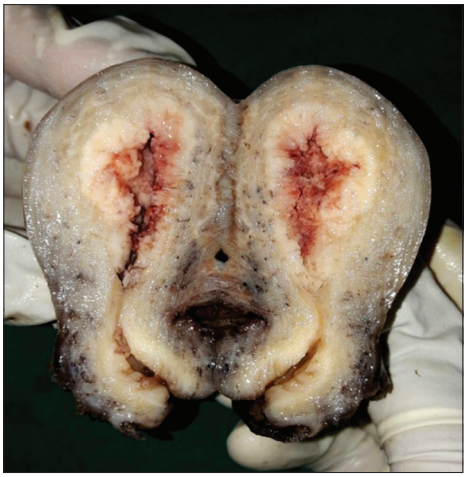

Fig. 1: Gross photograph of hysterectomy specimen, with an infiltrative tumor in the endometrial cavity

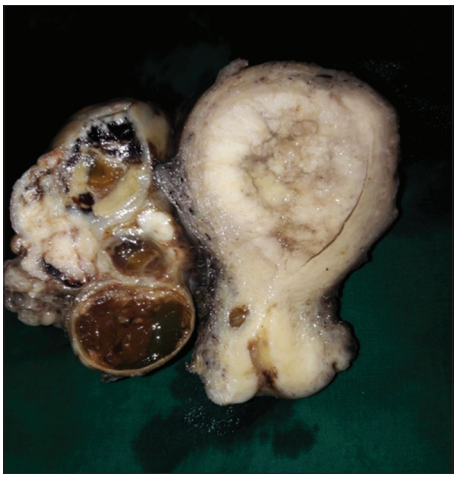

Fig. 2: Gross photograph of hysterectomy specimen, with a proliferating tumor within the endometrial cavity

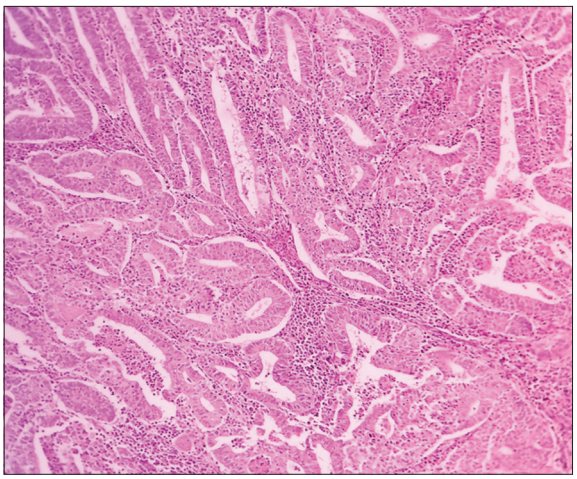

Fig. 3: Photomicrograph of well-differentiated endometrial carcinoma showing tumor cells arranged in a glandular pattern (Grade 1) (H&E, ×10)

involvement. The tumor grade was grade 3, with the presence of solid sheets of atypical cells, with the presence of numerous atypical mitotic figures. The patient received palliative chemotherapy [Figure 4].

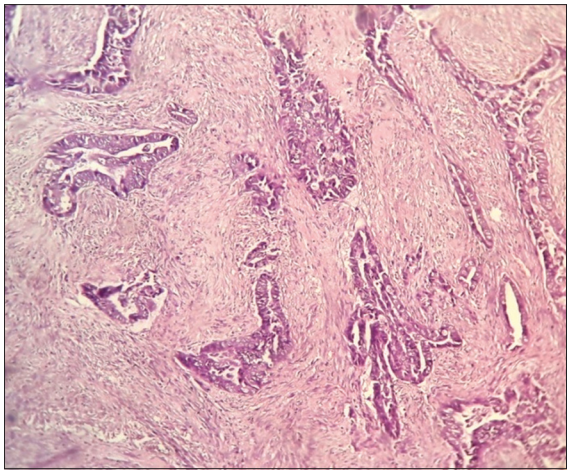

Fig 4: Photomicrograph of poorly differentiated endometrial carcinoma showing tumor cells arranged predominantly in solid nests and islands with the presence of desmoplasia (Grade 3) (H&E, ×10)

DISCUSSION

This case series underscores the variability in clinical presentation and outcomes of endometrioid endometrial carcinoma. The cases reflect a spectrum of disease, from early-stage, well-differentiated tumors to advanced, poorly differentiated forms. Early-stage endometrioid endometrial carcinoma, particularly FIGO I, often has excellent prognostic outcomes, as demonstrated in Cases 1 and 4, corroborating findings that early intervention significantly improves survival rates [6].

Conversely, advanced-stage endometrial carcinoma, poses a greater therapeutic challenge, as seen in Case 3, where the patient's aggressive tumor behavior required a multimodal approach. The role of neoadjuvant chemotherapy in advanced cases has gained traction, showing promise in downstaging tumors before surgery [7].

The association of obesity and hormone replacement therapy with the development of endometrioid endometrial carcinoma is well-documented, reinforcing the need for awareness among health-care providers regarding risk factors [8]. Moreover, the presence of hereditary syndromes, such as Lynch syndrome, necessitates genetic counseling and family screening in younger patients [9,10].

CONCLUSION

This case series highlights the clinical heterogeneity of endometrioid endometrial carcinoma. The diversity in presentation, treatment approaches, and outcomes emphasizes the need for individualized patient management strategies. Continued research into the different risk factors and increased education regarding early screening measures of endometrial carcinoma will aid in optimizing prevention and treatment protocols.

ACKNOWLEDGMENTS

None.

CONFLICTS OF INTEREST

None.

AUTHORS FUNDING

Nil.

AUTHOR CONTRIBUTION

The author has contributed to the conception, drafting, and review of the manuscript.

CONSENT

Written, informed consent was obtained from the patients.

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