

## Solitary Abdominal Wall Metastasis of Endometrial Carcinoma: A Rare Case



### Medical Science

**KEYWORDS :** Endometrial carcinoma; Abdominal wall metastasis; Cytoreductive surgery; Abdominal wall reconstruction

**Prof. Shilpa A. Rao**

(M.S., MRCSEd, FACRSI) Professor and Unit Head, Department of General Surgery, Seth G. S. Medical College and K.E.M. Hospital, Acharya Donde Marg, Parel, Mumbai-400012.

**Dr. Aditya R. Kunte**

(M.S.) Seth G. S. Medical College and K.E.M. Hospital, Acharya Donde Marg, Parel, Mumbai-400012.

**Dr. Sumit Mandal**

Seth G. S. Medical College and K.E.M. Hospital, Acharya Donde Marg, Parel, Mumbai-400012.

### ABSTRACT

*A 60-year-old lady, who had undergone an abdominal hysterectomy 3 years ago for menorrhagia; and was incidentally diagnosed to have an adenocarcinoma of the endometrium on surgical pathology; presented with a slowly growing right lower quadrant abdominal wall lump since 7 months. An FNAC showed the lump to be a metastasis from a high grade papillary adenocarcinoma. A metastatectomy was performed with abdominal wall reconstruction by placement of an intraperitoneal composite mesh. This report is to bring to light a rare presentation of metastasis of adenocarcinoma of the endometrium, possibly from seeding of the scar site of the abdominal hysterectomy.*

### INTRODUCTION

Endometrial adenocarcinoma is the 3<sup>rd</sup> most common gynaecological malignancy in Indian women<sup>1</sup>.

Postmenopausal bleeding, warrants a high degree of suspicion and a preemptive workup for endometrial cancer enables comprehensive surgical staging, prevents tumour seeding and improves prognosis of incidentally detected cancers<sup>2-6</sup>.

87% of the recurrences occur within 3 years of primary resection, warranting a stringent follow-up across all stages<sup>7-9</sup>. Papillary serous carcinoma, clear cell carcinoma, and endometrioid carcinoma are at the highest risk of recurrence<sup>9</sup>.

Commonest sites for recurrence are the vagina, the pelvic and para-aortic lymph nodes<sup>10</sup>. Abdominal wall metastases, are extremely rare and have been linked to seeding of the scar site<sup>9,11</sup>

Metastatic cases are treated with surgery, chemotherapy, hormonal and radiation

therapy, with cytoreduction impacting survival the most<sup>12-14</sup>.

### CASE PRESENTATION

A 60-year-old diabetic lady presented with an insidiously progressing lower abdominal lump since 7 months, following an abdominal hysterectomy for postmenopausal bleeding, which was later diagnosed on histopathology to be an endometrial carcinoma FIGO Stage IA Grade II

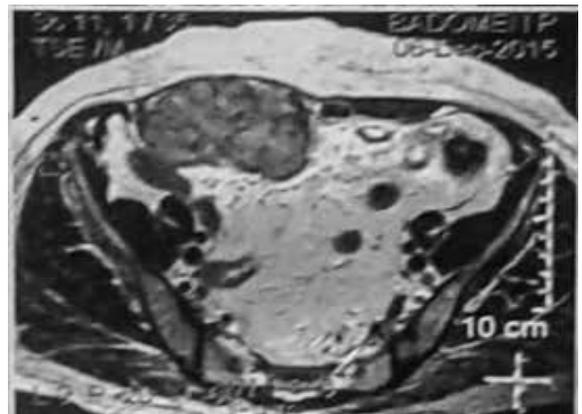
A well healed Pfannenstiel scar with a 10x8cm, well defined, intramuscular, firm, lobulated, non-tender lump, adherent to it, was noted.



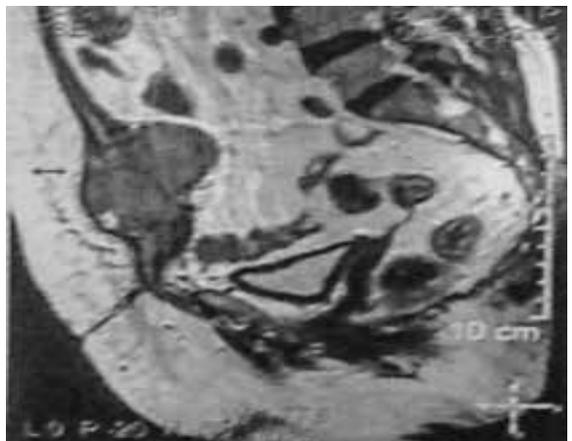
**Fig. 1: Clinical presentation. Arrow: Tumour**

CECT showed a well defined, lobulated, isodense lesion of 6 x 8.5 x 9 cm (AP x TR x CC) adherent to the right rectus muscle and peritoneum, with moderate heterogenous enhancement with early washout.

MRI confirmed the CT findings and a PET scan did not reveal any other sites of high tracer uptake.



**Fig. 2: MRI abdomen. Arrows: Tumour**



**Fig. 3: MRI abdomen. Arrows: Tumour**

FNAC showed a metastatic high-grade papillary adenocarcinoma.

CA 125 was >600U/mL (normal range < 19.5U/mL).

A wide local excision of the tumour, including peritoneum was performed. There was no intra- peritoneal extension.



Fig. 4: Intra- operative photograph. Arrow: Tumour



Fig. 5: Intra- operative photograph. Arrow: Tumour

The 7x8 cm muscular defect in the muscles and the underlying peritoneum was reconstructed by placing a 18x30cm composite mesh.



Fig. 6: Placement of intra- peritoneal composite mesh. Arrow: Composite mesh

The patient made an uneventful recovery following the surgery.

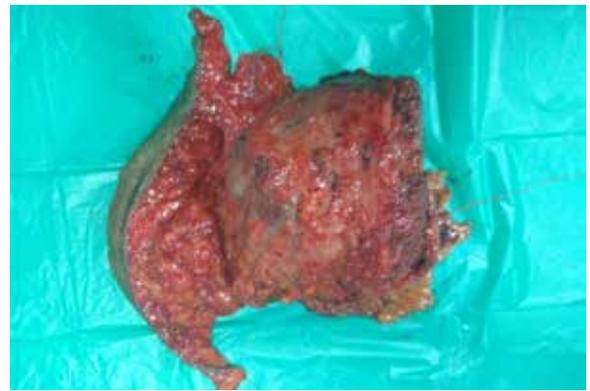


Fig. 7: Excised specimen

The histopathology report showed a metastasis of Grade II endometrioid adenocarcinoma, positive for estrogen and progesterone receptors with tumour free margins.

The patient is now being planned for post- operative chemo- radiation and hormonal therapy.

#### DISCUSSION

Postmenopausal bleeding, warrants a high degree of suspicion and a preemptive workup for endometrial cancer enables comprehensive surgical staging, prevents tumour seeding and improves prognosis over incidentally detected cancers<sup>2-6</sup>.

The FIGO's surgical staging system for endometrial cancer is based on surgical pathology, total hysterectomy, bilateral salpingo- oophorectomy, pelvic and para-aortic lymphadenectomy, and the collection of peritoneal cytology for accurate definition of disease extent<sup>14</sup>.

The GOG-99 study defines risk based on age, tumor grade, depth of myometrial invasion and lymphovascular space invasion. Radiation therapy in higher grades improved progression-free survival with fewer local recurrences<sup>15</sup>. Alternatively, low risk, stage I disease can be spared potential complications of pelvic lymphadenectomy, radiation, chemotherapy such as lymphoedema.<sup>16-18</sup>.

Incidentally detected endometrial carcinomas need a comprehensive pathology review as per the FIGO guidelines. This patient showed a FIGO Stage IA, Grade II endometrioid tumour and therefore did not require further treatment<sup>4,5</sup>. Tumours with intermediate- or high-risk features should be considered for comprehensive surgical staging to plan further adjuvant therapy<sup>4,6,15</sup>.

However, a pre- operative diagnosis of endometrial carcinoma in this patient would have prompted better tissue handling and possibly prevented the seeding of the scar site with tumour cells. This case reiterates the importance of ruling out endometrial cancer in all cases of post- menopausal bleeding before definitive management is undertaken.

Recurrence of early stage endometrial cancer ranges from 3 to 17%<sup>7</sup>, with 87% of the recurrences occurring within the first three years<sup>21</sup>. Survival rates are as low as 5-15%<sup>14</sup>.

In- spite of the patient receiving the standard of care for her stage of the disease, a regular long term follow- up schedule should have been advised in view of the recurrence pattern of the disease, which would have enabled the detection and complete excision of any recurrences at a much earlier stage, thereby improving the overall survival of the patient and reducing the morbidity.

Several large studies<sup>12,13</sup> have demonstrated a statistically significant progression-free and overall survival advantage in Grade III & IV tumours with a multimodal approach that includes surgery, chemo radiation, with optimal cytoreduction being the most crucial aspect<sup>20-22</sup>.

75–80% of recurrences occur in the vagina<sup>10</sup>, followed by pelvic and para- aortic nodes<sup>21</sup>. Abdominal wall metastases, are rare, and linked to surgical incision<sup>9,11,19</sup>.

We decided to operate on this patient cause of the definitive survival advantage of excising the solitary metastasis over the morbidity.

Although optimal cytoreductive surgery has shown a therapeutic benefit in metastatic disease GOG[2006] reported a randomized trial wherein chemotherapy with doxorubicin and cisplatin in advanced endometrial cancer demonstrated a survival advantages over whole-abdomen irradiation and chemotherapy<sup>23</sup>. Sequential and combination chemoradiation have improved outcomes over either modality<sup>21,23</sup>.

Progesterone based hormonal therapy is recommended for low risk, endometrioid histologies with greatest response seen with a combination of tamoxifen and medroxyprogesterone in grade I tumours<sup>24</sup>.

In the absence of established guidelines, tumour burden, tumour characteristics and co- morbidities should define adjuvant therapy.

## CONCLUSION

Postmenopausal bleeding, warrants a high degree of suspicion and a preemptive workup for endometrial cancer enables comprehensive surgical staging, prevents tumour seeding and improves prognosis over incidentally detected cancers. A meticulous follow- up schedule needs to be maintained to detect recurrences early.

Cytoreductive surgery is an independent prognostic factor impacting survival in patients with primary as well as recurrent endometrial carcinoma. Hence, every attempt to achieve zero residual disease should be made in all presentations of endometrial carcinoma.

## ETHICAL APPROVAL AND CONSENT

All procedures performed in this study were in accordance with the ethical standards of the institutional research ethics committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. Informed consent was obtained from all individual participants included in the study.

## DISCLOSURE

The authors report no conflict of interest.

## REFERENCES

- NCRP/PBCR report 2009- 2011.
- Bendifallah S, Canlorbe G, Laas E, et al. A predictive model using histopathologic characteristics of early-stage type I endometrial cancer to identify patients at high risk for lymph node metastasis. *Ann Surg Oncol*. 2015 Dec. 22 (13):4224-32.
- Fotopoulou C, El-Balat A, du Bois A, et al. Systematic pelvic and paraaortic lymphadenectomy in early high-risk or advanced endometrial cancer. *Arch Gynecol Obstet*. 2015 Dec. 292 (6):1321-7.
- Creasman WT, Morrow CP, Bundy BN, Homesley HD, Graham JE, Heller PB. Surgical pathologic spread patterns of endometrial cancer. A Gynecologic Oncology Group study. *Cancer* 1987;60(8 Suppl.):2035–41.
- Mariani A, Dowdy SC, Cliby WA, Gostout BS, Jones MB, Wilson TO, et al. Prospective assessment of lymphatic dissemination in endometrial cancer: a paradigm shift in surgical staging. *Gynecol Oncol* 2008;109(1):11–8.
- Taskiran C, Yuce K, Geyik PO, Kucukali T, Ayhan A. Predictability of retroperitoneal lymph node metastasis by using clinicopathologic variables in surgically staged endometrial cancer. *Int J Gynecol Cancer* 2006;16(3):1342–7.
- Nicolaije, KA; Ezendam, NP; Vos, MC; Boll, D; Pijnenborg, JM; Kruitwagen, RF; Lybeert, ML; van de Poll-Franse, LV (2013). "Follow-up practice in endometrial cancer and the association with patient and hospital characteristics: A study from the population-based PROFILES registry". *Gynecologic Oncology*129 (2): 324- 331.
- Ang, C; Bryant, A; Barton, DP; Pomel, C; Naik, R (4 February 2014). "Exenterative surgery for recurrent gynaecological malignancies.". *The Cochrane database of systematic reviews* 2: CD010449.doi:10.1002/14651858.CD010449.pub2. PMID 24497188.
- F. Gücer, F. Oz-Puyan, Ö. Yılmaz, N. Mülayim, P. Balkanlı-Kaplan, and M. A. Yüce, "Endometrial carcinoma with laparotomy wound recurrence: complete remission following surgery and chemotherapy consisting of paclitaxel and carboplatin," *International Journal of Gynecological Cancer*, vol. 15, no. 6, pp. 1195–1198, 2005.
- Kong, A; Johnson, N; Kitchener, HC; Lawrie, TA (18 April 2012). "Adjuvant radiotherapy for stage I endometrial cancer.". *The Cochrane database of systematic reviews* 4: CD003916.doi:10.1002/14651858.CD003916.pub4.PMID 22513918
- S. Palomba, A. Falbo, R. Oppedisano, T. Russo, and F. Zullo, "Isolated port-site metastasis after laparoscopic surgery for endometrial cancer: a case report," *Gynecologic Oncology Case Reports*, vol. 2, no. 1, pp. 16–17, 2011.
- Bristow RE, Zerbe MJ, Rosenshein NB, Grumbine FC, Montz FJ. Stage IVB endometrial carcinoma: the role of cytoreductive surgery and determinants of survival. *Gynecol Oncol* 2000;78:85–91.
- Shih KK, Yun E, Gardner GJ, Barakat RR, Chi DS, Leitao MM Jr. Surgical cytoreduction in stage IV endometrioid endometrial carcinoma. *Gynecol Oncol* 2011; 122:608–11.
- Pecorelli S. Revised FIGO staging for carcinoma of the vulva, cervix, and endometrium [published erratum appears in *Int J Gynaecol Obstet* 2010;108:176]. *Int J Gynecol Obstet* 2009;105:103–4
- Keys HM, Roberts JA, Brunetto VL, Zaino RJ, Spirtos NM, Bloss JD, et al. A phase III trial of surgery with or without adjunctive external pelvic radiation therapy in intermediate risk endometrial adenocarcinoma: a Gynecologic Oncology Group study. *Gynecologic Oncology Group* [published erratum appears in *Gynecol Oncol* 2004;94:241–2]. *Gynecol Oncol* 2004;92:744–51.
- Benedetti Panici P, Basile S, Maneschi F, Alberto Lissoni A, Signorelli M, Scambia G, et al. Systematic pelvic lymphadenectomy vs. no lymphadenectomy in early-stage endometrial carcinoma: randomized clinical trial. *J Natl Cancer Inst* 2008;100:1707–16.
- Kitchener H, Swart AM, Qian Q, Amos C, Parmar MK. Efficacy of systematic pelvic lymphadenectomy in endometrial cancer (MRC ASTEC trial): a randomised study. *ASTEC study group* [published erratum appears in *Lancet* 2009;373:1764]. *Lancet* 2009;373:125–36.
- Yost KJ, Chevillat AL, Al-Hilli MM, Mariani A, Barrette BA, McGree ME, et al. Lymphedema after surgery for endometrial cancer: prevalence, risk factors, and quality of life. *Obstet Gynecol* 2014;124:307–15.
- Kurra, V; Krajewski, KM; Jagannathan, J; Giardino, A; Berlin, S; Ramaiya, N (2013). "Typical and atypical metastatic sites of recurrent endometrial carcinoma". *Cancer Imaging* 13: 113–22. doi:10.1102/1470-7330.2013.0011. PMC 3613792.PMID 23545091
- Campagnutta E, Giorda G, De Piero G, Sopracordevole F, Visentin MC, Martella L, et al. Surgical treatment of recurrent endometrial carcinoma. *Cancer* 2004;100: 89–96.
- Awtrey CS, Cadungog MG, Leitao MM, Alektiar KM, Aghajanian C, Hummer AJ, et al. Surgical resection of recurrent endometrial carcinoma. *Gynecol Oncol* 2006; 102:480–8. (Level III)
- Dowdy SC, Mariani A, Cliby WA, Haddock MG, Petersen IA, Sim FH, et al. Radical pelvic resection and intraoperative radiation therapy for recurrent endometrial cancer: technique and analysis of outcomes. *Gynecol Oncol* 2006;101:280–6.
- Randall ME, Filiaci VL, Muss H, Spirtos NM, Mannel RS, Fowler J, et al. Randomized phase III trial of wholeabdominal irradiation versus doxorubicin and cisplatin chemotherapy in advanced endometrial carcinoma: a Gynecologic Oncology Group Study. *J Clin Oncol* 2006; 24:36–44. (Level I)
- Whitney CW, Brunetto VL, Zaino RJ, Lentz SS, Sorosky J, Armstrong DK, et al. Phase II study of medroxyprogesterone acetate plus tamoxifen in advanced endometrial carcinoma: a Gynecologic Oncology Group study. *Gynecol Oncol* 2004;92:4–9.