Endometrioid Adenocarcinoma of the Vagina in an 82-Year-old Female with a Previous Hysterectomy

Shannon Cunningham OMS IV; Eve Ashby DO FACOOG; Debosree Roy PhD

A. T. Still University School of Osteopathic Medicine, Mesa, AZ

Objectives

- This report recounts the case of a patient with primary endometrioid adenocarcinoma of the vagina, a rare cancer.
- This case underscores the importance of a broad differential, especially in the context of postmenopausal vaginal bleeding in patients with a history of hysterectomy.

Introduction

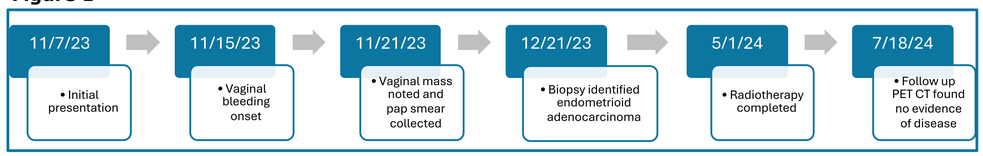
- Primary vaginal cancers are 1%-2% of gynecologic cancers.[1]
- Histologic subtypes include squamous cell carcinoma, adenocarcinoma, melanoma, and sarcoma botryoides.
- There is a limited understanding of the causes of endometrioid adenocarcinoma.
- On average, a patient with vaginal adenocarcinoma is 60 years old.[2] The most common presenting symptom is vaginal bleeding or discharge, most are status post a hysterectomy, about half have known endometriosis, and a third have unopposed estrogen use.[2]

Case Description

Clinical Summary

- An 82-year-old female patient with a PMH of hypothyroidism presented to a primary care clinic with urinary frequency, pressure, abdominal cramping, and small stools (Figure 1). An x-ray of the kidneys, ureters, and bladder (KUB), urinalysis, CBC, and thyroid labs were ordered to evaluate for conditions such as urinary tract infection and constipation. Initial testing confirmed constipation; however, one week later the patient called the clinic with newly noted vaginal bleeding. Pelvic exam found a 3 x 4 cm firm, friable, and immobile mass in the apex and posterior vagina. Further history found her to be status post total hysterectomy in 1972 for fibroids and on long term estrogen replacement.

Figure 1



Diagnostic Assessment

- Pap smear of vaginal lesion: Epithelial cell abnormality, ASCUS.
- CT: 1.6 x 1.1 cm low density area on right side of vaginal cuff.
- Biopsy: Adenocarcinoma, Endometrioid Type (FIGO Grade 1). Immunohistochemical stains were P16 patchy negative, ER positive, and P53 wild type.
- MRI: Thick walled 4.5 x 3.1 cm vaginal cuff mass.
- PET CT: No metastatic disease.
- Diagnosis: Stage IB, grade 1, endometrioid adenocarcinoma of vagina.

Therapeutic Intervention

- The patient was instructed to discontinue use of estrogen replacement. Treatment consisted of pelvic External Beam Radiation Therapy (EBRT) of 45 Gy in 25 fractions, which was followed by an interstitial High Dose Rate (HDR) Brachytherapy Boost of 5.5 Gy in 5 fractions about one month later.

Follow-up and Outcomes

- She was instructed on the use of a vaginal dilator for treatment of expected toxicities. Based on radiation completion and minimal side effects, the patient tolerated therapy well.
- Follow up PET scan demonstrated no evidence of disease, and her next visit was planned in 3 months. She had hot flashes after stopping estrogen replacement and agreed to monitor symptoms before pursuing non-hormonal medications.

Discussion

- With the onset of vaginal bleeding, the differential diagnosis included a primary vaginal tumor or metastatic disease. This clinical scenario demonstrates a successful reconsideration of the diagnosis as her symptoms progressed.
  - Her symptoms could have been attributed to numerous conditions, and she did not initially present with the most common symptom of endometrioid adenocarcinoma.

Discussion continued

- Uterine pathology in postmenopausal patients is often the source of bleeding. [3,4] In those who no longer have a uterus, evaluation of postmenopausal vaginal bleeding relies on the greater consideration of less common etiologies and a robust differential.
- This approach represents an example of patient centered care, an important characteristic of osteopathic medicine.[5] Interestingly, cancer research has increasingly personalized cancer care and represents osteopathic principles.[5]

Conclusion

- Endometrioid adenocarcinoma of the vagina is a rare malignancy that most commonly presents with vaginal bleeding or discharge. However, clinical presentation can be variable.
- Postmenopausal vaginal bleeding, especially in patients with a prior hysterectomy, necessitates a thorough evaluation and differential diagnosis.

References

- Adams TS, Rogers LJ, Cuello MA. Cancer of the vagina: 2021 update. Int J Gynaecol Obstet. 2021;155 Suppl 1(Suppl 1):19-27. doi:10.1002/ijgo.13867 https://pubmed.ncbi.nlm.nih.gov/34669198/
- Staats PN, Clement PB, Young RH. Primary Endometrioid Adenocarcinoma of the Vagina. The American Journal of Surgical Pathology. 2007; 31 (10): 1490-1501. doi: 10.1097/PAS.0b013e31804a7e9a. https://pubmed.ncbi.nlm.nih.gov/17895749/
- Burbos N, Musonda P, Giarenis I, et al. Age-related differential diagnosis of vaginal bleeding in postmenopausal women: a series of 3047 symptomatic postmenopausal women. Menopause Int. 2010;16(1):5-8. doi:10.1258/mi.2010.010005 https://pubmed.ncbi.nlm.nih.gov/20424279/
- Izetbegovic S, Stojkanovic G, Ribic N, Mehmedbasic E. Features of postmenopausal uterine haemorrhage. Med Arch. 2013;67(6):431-434. doi:10.5455/medarh.2013.67.431-434 https://pubmed.ncbi.nlm.nih.gov/25568515/
- Brown ZJ, Martin SP, Carman R Jr. Integrating Osteopathic Philosophy in Cancer Care. J Am Osteopath Assoc. 2019;119(6):391-394. doi:10.7556/jaoa.2019.068 https://pubmed.ncbi.nlm.nih.gov/31135867/

Acknowledgments

- A special thank you to Dr. Ashby and Dr. Roy for guidance and support on this research project.