Metastatic Cervical Cancer Presenting as a Sessile Polyp in the Ascending Colon

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ABSTRACT

Patients with metastatic cervical cancer, especially those in whom the disease has spread via the bloodstream, generally have a poorer prognosis compared to those with localized cervical cancer. Cervical cancer's involvement in the gastrointestinal tract is uncommon, occurring in only about 8% of cases. Typically, these lesions are discovered in the recto-sigmoid area, a consequence of the cancer's direct extension. We present a case report detailing a 60-year-old woman with a past history of cervical adenocarcinoma that had been treated with chemoradiation. She was hospitalized due to difficulties in passing stools. Following diagnostic evaluations, a sessile polyp in the ascending colon was detected, initially thought to be a hyperplastic polyp. However, histopathology and immunohistochemistry confirmed its cervical origin (p16+/CK7+/CK20-).

Keywords: *cervical cancer, metastasis, sessile polyp, colon*

ABSTRAK

Pasien dengan kanker serviks metastasis, khususnya metastasis hematogen, memiliki prognosis lebih buruk dibandingkan dengan pasien kanker serviks yang terlokalisir. Keterlibatan gastrointestinal pada kanker serviks terbilang jarang dan meliputi sekitar 8% kasus dan sebagian besar lesi terletak di daerah rektosigmoid akibat ekstensi langsung dari penyakit ini. Pada tulisan ini, kami mempresentasikan sebuah kasus perempuan berusia 60 tahun dengan riwayat adenokarsinoma serviks dengan riwayat terapi menggunakan kemoradiasi yang datang dengan keluhan sulit buang air besar. Pemeriksaan lebih lanjut menunjukkan massa polip sesil yang menyebar ke kolon asendens dan menyerupai polip hiperplastik. Pemeriksaan histopatologi dan imunohistokimia menunjukkan massa yang berasal dari serviks (p16+/CK7+/CK20-).

Kata kunci: *kanker serviks, metastasis, polip sesil, kolon*

INTRODUCTION

Cervical cancer remains a significant public health issue. It is the fourth most common cause of cancer incidence and death among women worldwide, with nearly 0.6 million cases and 0.3 million deaths reported annually.[1] Cervical cancer is known as a locally invasive cancer which predominantly spread through direct extensions or lymphatic dissemination. Patients

diagnosed with metastatic cervical cancer, particularly those with hematogenous metastasis, face a dismal prognosis, with a median survival of less than 13 months and a 5-year survival rate of 16.5%.[2] The most frequent metastatic sites for cervical cancer include the lungs, para-aortic lymph node region, mediastinal lymph node region, supraclavicular lymph node region, liver, and bone.[3, 4] Rarely, cervical-to-colon metastasis

via a hematogenous route is observed. Here, we present a case of cervical adenocarcinoma with ascending colon metastasis that manifested as a sessile polyp.

CASE ILLUSTRATION

A 60-year-old woman was admitted to the emergency department with a chief complaint of difficulty passing stool and reduced oral intake for four days. Eight months prior, she was diagnosed with stage IIIB cervical cancer and underwent chemoradiation therapy. Histopathological and immunohistochemical evaluation of the cervical cancer specimen showed a poorly differentiated adenocarcinoma. She had routine follow-ups every two months. Her most recent magnetic resonance imaging (MRI) revealed a residual mass on the cervix with infiltration into the right parametrium, thickening of the rectal wall, and right piriformis muscle.

She was subsequently referred for a colonoscopy evaluation, which revealed a submucosal mass in the rectum, 5 cm from the anal canal, causing a narrowing of the lumen (Figure 1A). Additionally, a sessile polyp, 10 mm in diameter, was discovered in the ascending colon (Figure 1B).

The histopathological examination of the polyp (Figure 2A) indicated the presence of a metastatic adenocarcinoma, consistent with the histopathological findings from the cervical cancer biopsy (Figure 2B). A positive expression of p16 (Figure 2C) and CK7 (Figure 2D) with negative CK20 (Figure 2E) on immunohistochemistry evaluation further confirmed a tumor originating from the cervix.

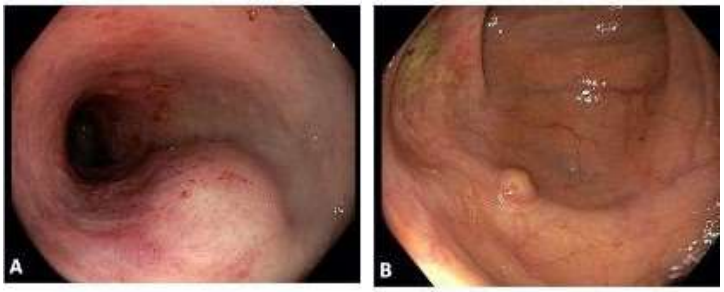

Figure 1. (A) Colonoscopy revealed a submucosal mass at 5 cm from the anal canal causing narrowing of the lumen. (B) A sessile polyp of 10 mm in diameter with a smooth pale-yellow surface and slightly erythematous margin was found at the ascending colon. The polyp was biopsied using a forceps biopsy.

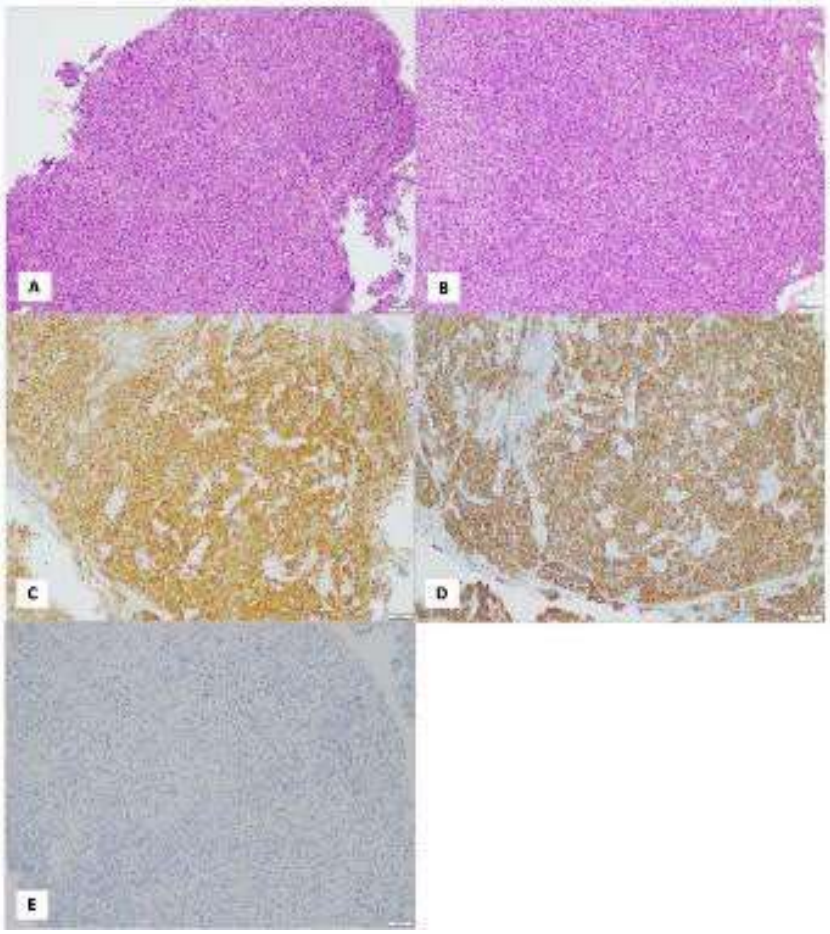

Figure 2. Histopathology specimen of the polyp.

In Figure A, we observe comparable microscopic characteristics between the polyp and the cervical cancer specimen in Figure B. These characteristics include the presence of round and oval tumor cells arranged in a solid, nest-like pattern, exhibiting high-grade nuclear atypia. (hematoxylin and eosin staining, x100 magnification); Positive expressions of p16 (C) and CK7 (D) were observed in the immunohistochemistry procedure, while CK20 (E) showed a negative result. These findings provide additional confirmation that the tumor originates from the cervix

Table 1. Several case reports of distant metastases from cervical cancer to the colon

No	Author (years)	Pathologic type	Metastasis sites	Confirmation of diagnosis	Finding
1.	Barlin JN, et al.[15] (2013)	Adenosquamos carcinoma	Sigmoid	Colonoscopy	Large circumferential mass
2.	Fukami T, et al.[16] (2016)	SCC	Transverse colon	Laparotomy	Nodular palpable mass
3.	Yu X, et al.[11] (2016)	SCC	Sigmoid	Colonoscopy	Firm tumor
4.	Agrawal P, et al.[17] (2017)	SCC	Hepatic flexure	Colonoscopy	Circumferential, nodular, stricturizing growth
5.	Lelchuk A, et al.[18] (2018)	SCC	Rectosigmoid	Laparotomy	Adherent colonic mass
6.	Shen W, et al.[19] (2019)	SCC	Sigmoid	Colonoscopy	Two lesions; lesion 1 was covered with smooth mucosa and lesion 2 with mucosal involvement

SCC: squamous cell carcinoma

DISCUSSION

Adenocarcinoma (AC) of the cervix is a relatively rare histologic form, accounting for approximately 10–25% of cervical cancer cases. However, the incidence has risen by 32.2% over recent decades.[5, 6] Metastatic lesions in cervical cancer can develop through either hematogenous or lymphatic dissemination. Although the hematogenous spread of cervical cancer is rare, it is more commonly seen in those with advanced-stage disease. Patients with hematogenous spread face a mortality risk that is over five times higher than those with lymphatic spread. The most frequent sites of metastasis in cervical cancer are the lungs, bones, liver, and brain. However, occasionally, atypical locations such as the colon can develop metastatic lesions.[8-12] Several case reports of distant metastases from cervical cancer to the colon are summarized in Table 1.

Gastrointestinal involvement of cervical cancer occurs in approximately 8% of cases and most lesions were found in the rectosigmoid area due to direct invasion from the primary tumor.[13] Apart from the tumour's direct extension into the rectum as a submucosal mass, our patient also exhibited a metastatic lesion in the ascending colon, resembling a hyperplastic polyp, and appearing as a sessile growth. A polyp is an abnormal growth of tissue protruding into the lumen of the bowel, typically without indicating any pathological significance. Polyps can be round, sessile, stalked, and various in size. The polyp found in our patient was small (5–10 mm), sessile, with light-colored surface, which resembled a hyperplastic polyp. However, polyps can only be classified based on histological evaluation. In our case, the histopathology evaluation of the polyp revealed a group of round-shape and oval tumor cells forming a solid nest-like pattern with a high-grade nuclear atypia. Further analysis showed a positive expression of CK7 and p16 and negative expression of CK20, which were in line with a metastatic cervical adenocarcinoma. The exact mechanism of the tumor metastasis in this case remains uncertain. Both hematogenous and lymphatic spread were possible as the lamina propria of the colon contains blood and lymphatic vessels through which the tumor cells can travel.

Given its rarity, there is no established consensus regarding management for metastatic colonic polyp lesions. However, the existence of metastatic lesions in the intestines emphasizes the advanced stage of the disease, necessitating systemic treatment.[14] In our case, the metastatic polyp had been removed by forceps biopsy and the patient was planned for systemic therapy.

CONCLUSION

While it is uncommon, cervical cancer can metastasize to the colon, manifesting as a sessile polyp. Clinicians should be mindful of this possibility, especially when patients present with gastrointestinal symptoms, particularly issues related to defecation. The primary method for confirming the diagnosis continues to be histopathological evaluation, followed by immunohistochemical analysis.

REFERENCES

1. Arbyn M, Weiderpass E, Bruni L, de Sanjosé S, Saraiya M, Ferlay J, et al. Estimates of incidence and mortality of cervical cancer in 2018: a worldwide analysis. Lancet Glob Health. 2020;8(2):e191-e203.
2. Yin Z, Tang H, Li L, Ni J, Yuan S, Lou H, et al. Impact of sites versus number of metastases on survival of patients with organ metastasis from newly diagnosed cervical cancer. Cancer Manag Res. 2019;11:7759-66.
3. Liu X, Meng Q, Wang W, Zhou Z, Zhang F, Hu K. Predictors of Distant Metastasis in Patients with Cervical Cancer Treated with Definitive Radiotherapy. J Cancer. 2019;10(17):3967-74.

4. Fagundes H, Perez CA, Grigsby PW, Lockett MA. Distant metastases after irradiation alone in carcinoma of the uterine cervix. Int J Radiat Oncol Biol Phys. 1992;24(2):197-204.
5. Hildesheim A, Berrington de González A. Etiology and prevention of cervical adenocarcinomas. J Natl Cancer Inst. 2006;98(5):292-3.
6. Williams NL, Werner TL, Jarboe EA, Gaffney DK. Adenocarcinoma of the cervix: should we treat it differently? Curr Oncol Rep. 2015;17(4):17.
7. Li H, Yang Y, Zhou H, Liu F, Li M, Chen L, et al. Clinicopathologic characteristics and survival analysis in stage IVB cervical cancer with hematogenous metastasis. Transl Cancer Res. 2019;8(4):1217-23.
8. Bhandari V, Kausar M, Naik A, Batra M. Unusual Metastasis from Carcinoma Cervix. J Obstet Gynaecol India. 2016;66(5):358-62.
9. Gardner AB, Charo LM, Mann AK, Kapp DS, Eskander RN, Chan JK. Ovarian, uterine, and cervical cancer patients with distant metastases at diagnosis: most common locations and outcomes. Clin Exp Metastasis. 2020;37(1):107-13.
10. Li H, Wu X, Cheng X. Advances in diagnosis and treatment of metastatic cervical cancer. J Gynecol Oncol. 2016;27(4):e43.
11. Yu X, Wang Z, Zhang Z, Liu Y, Huang J. Postoperation of cervical cancer with intestine metastasis: a case report and literature review. World Journal of Surgical Oncology. 2016;14(1):2.
12. Zhou S, Peng F. Patterns of metastases in cervical cancer: a population-based study. Int J Clin Exp Pathol. 2020;13(7):1615-23.
13. Singhal A, Masood S, Mahajan C, Hadi R, Bhalla S. Gastric and colonic metastasis from cancer cervix: An unusual progression with an uncommon cause of mortality. South Asian J Cancer. 2015;4(1):51-3.
14. Network. NCC. Cervical Cancer (Version 1.2022)Oct 31, 2022. Available from: https://www.nccn.org/professionals/physician_gls/pdf/cervical.pdf.
15. Barlin JN, Kim JS, Barakat RR. Recurrent cervical cancer isolated to the sigmoid colon: A case report. Gynecol Oncol Case Rep. 2013;6:28-30.
16. Fukami T, Tsujioka H, Matsuoka S, Sorano S, Tohyama A, Yamamoto H, et al. Solitary transverse colon metastasis: A rare case of uterine cervical cancer recurrence. Eastern J Med. 2016;21(2):98-100.
17. Agrawal P, Gupta S, Saha S, Prestine A, Koladiya J, Dahiya V, et al. A case report: metastasis in ascending colon from carcinoma cervix. Int J Sci Res. 2017;6(7).
18. Lelchuk A, Morin N, Bain K. Squamous cell carcinoma of cervix origin with rare metastasis to the colon. AME Case Rep. 2018;2:23.
19. Shen W, Huang Y, Zhou Y, Chang B, Zhang M. Intestinal metastasis after total laparoscopic radical trachelectomy for stage IB1 cervical cancer: A case report. Gynecol Oncol Rep. 2019;28:37-40.