Case Report

Duodenal metastasis from carcinoma cervix: An unusual presentation and review of literature

Pulkit Nag, Virendra Bhandari, Mehlam Kausar, Harsh Goyal

Department of Radiation Oncology, Sri Aurobindo Medical College and PG Institute, Indore, Madhya Pradesh, India

ABSTRACT

Carcinoma cervix is the most common malignancy in Indian women. Squamous cell carcinoma (SCC) of cervix with metastasis to duodenum is a rare occurrence. Until now, we could find only six cases in the literature. We found such rare case and hence report here a case of a 67-year-old female patient with carcinoma cervix with duodenal metastasis diagnosed after 4 years of cervical carcinoma. On gastroduodenoscopy thickened mucosal folds were seen in the second and third part of the duodenum. Histopathology confirmed it as metastatic SCC. She was started on palliative chemotherapy but succumbed to the disease. This case is being reported due to its rare occurrence.

Key words: Cancer cervix, duodenal metastasis, unusual metastasis

INTRODUCTION

Squamous cell carcinoma (SCC) of cervix is the second most common gynecological malignancy in the world and is more prevalent in developing countries such as India. Majority of patients usually die from local extension rather than distant metastases. SCC of cervix most commonly spreads through locoregional lymphatic's and rarely by blood vessel invasion.[1] Common site of distant metastasis includes lung, liver, and bones. SCC cervix presenting with duodenal metastasis is quiet uncommon. Metastatic lesions are more common than primary malignancies in duodenum, jejunum, and ileum. Although malignant melanoma is the most common extraintestinal site which metastasize to small bowel,[2] metastasis to small bowel is frequently encountered in end stage adenocarcinoma of pancreas, colon, or stomach by intraperitoneal seedlings. Thereby, we present a case of SCC of cervix with metastasis to the second part of duodenum.

Address for correspondence: Dr. Virendra Bhandari,
401, Samyak Towers, 16/3, Old Palasia, Indore - 452 001,
Madhya Pradesh, India.
E-mail: virencancer@yahoo.co.in

Access this article online

Quick Response Code:

Website: www.ccij-online.org

DOI: 10.4103/2278-0513.178065

CASE REPORT

A 67-year-old female presented in October 2014 with complaints of abdominal pain and vomiting. In past, she had SCC cervix IIb treated by chemoradiotherapy in 2010. She received 50 Gy in 25 fractions by external beam radiotherapy along with cisplatin - 40 mg/m^2 once weekly for a total of five cycles and then was followed by three sittings of intracavitary brachytherapy of 5 Gy each at point A. Since then she was on regular follow-up and was locoregionally controlled. In 2012, she developed a left supraclavicular node. Fine needle aspiration cytology from the lymph node was suggestive of metastatic SCC. The disease was controlled locally, and no other site showed any metastasis. She received six cycles of paclitaxel and carboplatin until January 2013 and then was kept on tablet gefitinib 250 mg

This is an open access article distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as the author is credited and the new creations are licensed under the identical terms.

For reprints contact: reprints@medknow.com

Cite this article as: Nag P, Bhandari V, Kausar M, Goyal H. Duodenal metastasis from carcinoma cervix: An unusual presentation and review of literature. Clin Cancer Investig J 2016;5:166-8.

once a day for 3 months which was later discontinued due to side effects. She was apparently alright until October 2014, and thereafter, she complained of abdominal pain and vomiting (3–4 episodes per day). Clinically, she was normal, but her computed tomography of abdomen and pelvis showed diffuse thickening of third part of duodenum. Magnetic resonance imaging of abdomen and pelvis were done in November 2014 showed thickening of second and third part of duodenum along with multiple enlarged nodes in mesentery. Then, gastroduodenoscopy was done which revealed thickened mucosal folds from D2 to D3 [Figure 1]. Biopsy was taken from the site which suggested metastatic SCC [Figure 2]. Immunohistochemistry confirmation could not be done. She received two cycles of chemotherapy with cisplatin (30 mg/m^2) and 5-flourouracil (600 mg/m^2) from day 1 to day 5 until February 2015, and later, the patient succumbed due to advanced nature of disease.

DISCUSSION

Carcinoma cervix is the most common malignancy in Indian women, with an incidence of 19–44 per 100,000 women.[3] Mostly it spreads locally and has a low incidence of distant metastasis. In advanced stages of carcinoma cervix, hematogenous route of spread is more common and is mainly through the paracervical venous plexus. Most common sites of distant metastasis include lung, liver, bone, and supraclavicular node. Approximately, 8% of carcinoma cervix patients show the involvement of gastrointestinal (GI) tract with rectosigmoid region being most commonly involved by local extension.[4]

Primary lesions in duodenum and proximal jejunum are usually adenocarcinomas, whereas lymphomas and carcinoids are seen in jejunum and ilium but sarcomas can be seen in the entire small bowel.[5,6] Malignant tumors of the small bowel are unusual and account for only 1–5% of all GI tract malignancies.[5] Metastatic lesions to the small bowel are more common than primary lesions, and most commonly arise from malignant melanoma, carcinoma lung, genitourinary cancers, breast cancer, Kaposi's sarcoma, colonic, and renal cell carcinomas.[6] Most of the reported cases of SCC in the pyloroduodenal region are from lung primary.

Isolated metastasis to small bowel is rare and spreads through para-aortic mesenteric lymph nodes through bowel serosa and less commonly by hematogenous spread or peritoneal seedlings.[4,7,8] Carcinoma of cervix spreads characteristically by direct extension, but lymph node metastasis is also common. The first station is represented by paracervical, hypogastric, obturator, and external iliac group. The second station includes sacral, common iliac, aortic, and inguinal group. Nodal involvement is directly related to the stage of the disease, and hence, is the crucial predictor of prognosis.[9] Extrapelvic spread of SCC of the cervix to the small bowel is rare, and there are only six reported cases since 1981.[10] This rare spread of cancer cervix to small bowel has prompted many theories of antitumor mechanism protecting the small intestine from cancer. High motility and rapid transit time limiting exposure of carcinogens to the mucosal surface or numerous lymphocytes and large secretions of IgA by mucosa protects the small bowel from developing primary or metastatic lesions.

It takes 2–13 years of median time for development of metastasis from primary. In our case, median time for the development of metastasis from primary was of 4 years. The most common presenting symptom of small bowel lesions is a partial or complete bowel obstruction and less commonly, bowel perforation, persistent abdominal pain, or hemorrhage (overt or occult).[4,8]

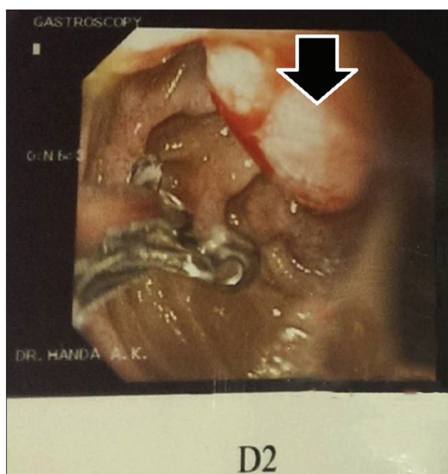

Figure 1: Esophagogastroduodenoscopy showing thickened mucosal folds from D2 to D3

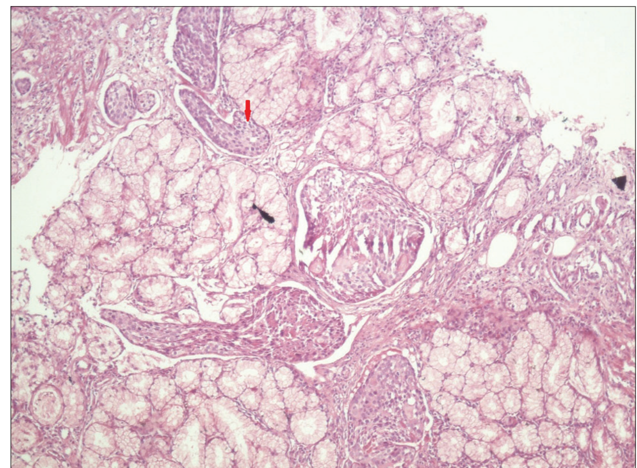

Figure 2: Histopathology report showing metastatic squamous cell carcinoma

CONCLUSION

Carcinoma of cervix spread characteristically by direct extension, but lymph node metastasis is also common. Extrapelvic spread of SCC of cervix to small bowel is rare. The cause of involvement of these unusual sites is not clear, but it may be hematological spread, and we want to share this report such that these sites are seen during follow-up of patients of cancer cervix.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

REFERENCES

1. Marcial-Rojas RA, Meigs JV. Cancer of the cervix uteri: A review of 169 necropsied cases. Am J Pathol 1955;31:1077-82.
2. Kanthan R, Gomez D, Senger JL, Kanthan SC. Endoscopic biopsies of duodenal polyp/mass lesions: A surgical pathology review. J Clin Pathol 2010;63:921-5.
3. Raphael JC, Ram TS, Pavamani S, Choudharie L, Viswanathan PN. Squamous cell carcinoma cervix with metastasis to pyloroduodenal region. J Cancer Res Ther 2011;7:183-4.
4. Gurian L, Ireland K, Petty W, Katon R. Carcinoma of the cervix involving the duodenum: Case report and review of the literature. J Clin Gastroenterol 1981;3:291-4.
5. Torres M, Matta E, Chinea B, Dueño MI, Martínez-Souss J, Ojeda A, *et al.* Malignant tumors of the small intestine. J Clin Gastroenterol 2003;37:372-80.
6. Loualidi A, Spooren PF, Grubben MJ, Blomjous CE, Goey SH. Duodenal metastasis: An uncommon cause of occult small intestinal bleeding. Neth J Med 2004;62:201-5.
7. Misonou J, Natori T, Aizawa M, Jou B, Tamaki A, Ogasawara M. Stage (Ia) cervical cancer recurring 13 years after hysterectomy and causing small intestinal perforation. A case report with a review of the literature. Acta Pathol Jpn 1988;38:225-34.
8. Mathur SK, Pandya GP. Solitary metastatic malignant stricture of the ileum: A rare cause of small bowel obstruction (a case report). J Postgrad Med 1984;30:186-8.
9. Rosai J. Female reproductive system. Rosai and Ackerman's Surgical Pathology. 9th ed., Vol. 2. St. Louis, Missouri: Elsevier Publishers; 2004. p. 1537.
10. Kanthan R, Senger JL, Diudea D, Kanthan S. A review of duodenal metastases from squamous cell carcinoma of the cervix presenting as an upper gastrointestinal bleed. World J Surg Oncol 2011;9:113.