

Metachronous Carcinoma at Colostomy Site Post Abdominoperineal Resection – A Rare Presentation Case Report

Abstract

Adenocarcinoma at the colostomy site rarely occurs after abdominopelvic resection (APR), only a handful of cases are reported in the literature. In absence of biopsy such growth may masquerade as hyperplasia or granulation tissue at stomal edges, leading to diagnostic dilemmas. We report an unusual case of a gentleman in his late 50s who underwent abdominoperineal resection for rectal cancer following which he presented with stomal site growth without distant metastasis 12 years later. In view of the absence of distant metastasis, segmental colonic resection with 2 cm skin margin and revision colostomy was performed with a plan of adjuvant therapy thereafter. Though carcinoma at the colostomy site is uncommon, careful stomal observation and examination for surveillance should be done during each follow-up and we suggest early biopsy and colonoscopy in case of suspicion. Segmental colonic resection with skin margin and adjuvant therapy is the preferred option in such presentations.

Keywords: Abdominoperineal resection, Stomal site growth, Metachronous carcinoma, Segmental colonic resection

Introduction

Isolated growth at the colostomy is rarely encountered in clinical practice.^[1] Such growth may masquerade as hyperplasia or granulation tissue at stomal edges, leading to diagnostic dilemmas in the absence of a biopsy.^[2] Due to its rarity, no definite etiology or management protocol is known for such occurrences. Here we report a case of a gentleman in his late 50s who underwent abdominoperineal resection (APR) for rectal cancer following which he developed stomal growth without distant metastasis 12 years later.

Case history

A gentleman in his late 50s, with a performance status of ECOG-1, had undergone APR with microscopically free margins (pT3N0M0) for rectal carcinoma. He had received adjuvant chemoradiation and was lost to follow-up. 12 years later, he presented with hard growth at stoma for 8 years for which no medical consultation was sought. There was no history of abdominal pain, distention, decreased stomal output, or bleeding from the stomal mass. He has no family history of malignancy. On examination, a circumferential, non-constricting hard,

nodular, indurated growth was present between the eight to three 'o'clock position (Figure 1).

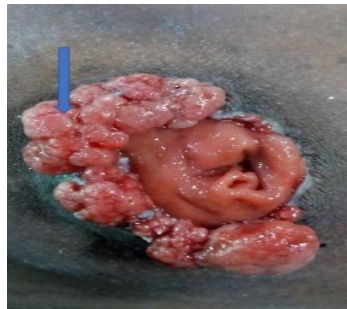


Figure 1. Irregular, polypoidal, circumferential, nodular growth arising from the sigmoid colostomy.

A biopsy was obtained from the lesion which revealed adenocarcinoma. Routine blood workup liver and kidney functions were within normal range. Colonoscopy showed no synchronous lesions. Contrast-enhanced computed tomography (CECT) abdomen and pelvis and positron emission tomography (PET) scan demonstrated no metastasis (Figure 2). In view of isolated growth at descending colostomy without metastasis and consultation with the oncology team, exploratory laparotomy with segmental resection of proximal 5cm of colon and mesocolon along with surrounding 2cm of circumferential skin

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Access this article online

Website: www.ccij-online.org

DOI: 10.51847/ZP8HS1y926

Quick Response Code:



How to cite this article: Huzaifa M, Singh A, Aggarwal V, Dhar A. Metachronous Carcinoma at Colostomy Site Post Abdominoperineal Resection – A Rare Presentation Case Report. Clin Cancer Investig J. 2023;12(2):1-3. <https://doi.org/10.51847/ZP8HS1y926>

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margin with revision colostomy was performed (**Figure 3**). There was no evidence of ascites, enlarged lymph nodes, or metastasis in the abdominal viscera or peritoneum intraoperatively.

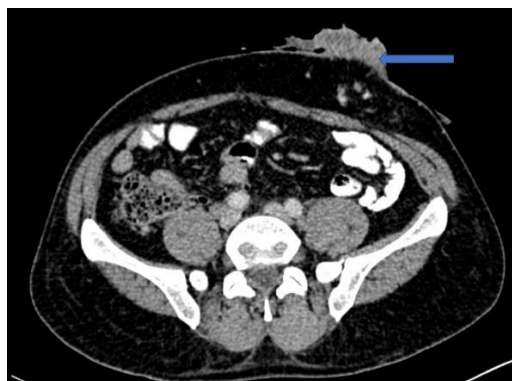


Figure 2. CECT abdomen showing stomal growth

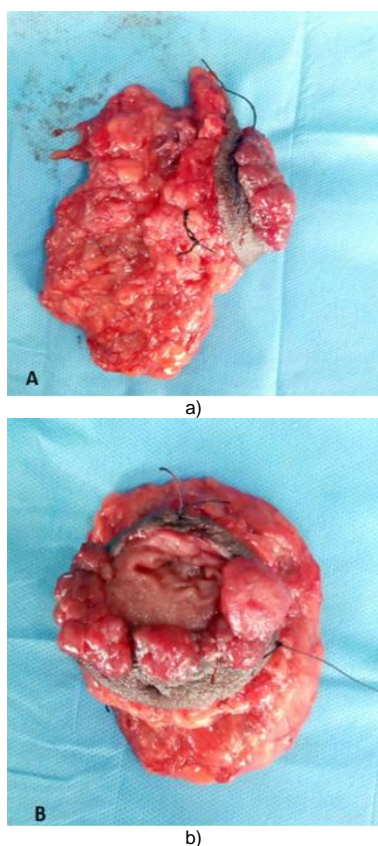


Figure 3. (a and b): Specimen of Wide local excision of stoma with 2 cm circumferential skin margin and 5cm colonic margin.

Postoperative histopathology showed adenocarcinoma with signet ring cell differentiation (pT2N0M0). All resected margins were free of tumors. Adjuvant chemotherapy was offered to the patient which got delayed for over a year due to the COVID lockdown. After 1 year of operation, a CT scan was performed, which revealed a nodal mass in the left pelvis encasing the left external iliac artery. Palliative chemoradiation in form of 6 cycles of oxaliplatin and capecitabine followed by 20Gy of radiation to the pelvis was administered. Currently, the patient is doing well and on

follow-up imaging, there was a significant reduction in nodal mass.

The patient will be followed up with a repeat CT and colonoscopy after 1 year.

Results and Discussion

The incidence of metachronous colonic carcinoma is around 2%, however metachronous adenocarcinoma at the colostomy site is still rare.^[1] Currently, there is no definite consensus and protocol regarding the management of such presentations.

Stoma site growth can clinically manifest as bruising, bleeding, progressive increase in stoma size, and thus the requirement of a larger size bag, stricture, or stoma site obstruction, peristomal rash, and ulceration of stoma.^[2] Multiple hypotheses have been postulated for the origin of stomal site growth such as local recurrence after inadequate margin clearance, metachronous carcinoma, or metastasis to the colostomy site. Metachronous stomal site carcinoma usually occurs between 4 to 30 years of resection of the primary lesion.^[3] Various hypotheses for the development of metachronous stomal site lesions have been postulated in case reports. These include adenoma-carcinoma sequence (in presence of concomitant polyps), de-novo metaplasia in absence of adenoma, ablative cancer cell reflux, and seeding following decompression of a colonic growth, and bile acid stimulation and persistent physical damage at the stomal site by stool.^[4,5] One of the reports attributes micro-metastasis left behind in lymph nodes along the inferior mesenteric artery pedicle at the time of APR.^[6] Based on this hypothesis, the reason in this case for the recurrence of nodal mass in the pelvis might be attributed to micro-metastasis from the colostomy site to pelvic nodes along external iliac vessels which were not picked up by PET CT performed in the preoperative workup.

Uncommon incidence of stomal site adenocarcinoma may lead to diagnostic delay. To our knowledge, two cases have been reported in the literature in which stomal obstruction was managed conservatively with manual and finger dilation for at least a year until the definitive diagnosis of carcinoma was established by biopsy.^[3,5] In this case, growth at the stoma site started four years after the primary resection of the tumor, but the patient presented 8 years later when a larger stoma bag was required. Delayed diagnosis is detrimental, and we must educate stoma care nurses and patients about such occurrences. Moreover, we should keep a low threshold for biopsy for suspicious clinical presentations such as obstructed stomas.

In the literature review, we found no consensus regarding the treatment of stomal site carcinoma. In general, the oncological outcomes are poor with a median survival of 30 months with a range from 6 to 84 months in such patients.^[4,6] A review of 10 such cases in literature by Davey *et al.* reports Segmental resection of the colon with revision colostomy as the preferred option along with adjuvant therapy.^[4] Furthermore, Lymph

node dissection decreases recurrence due to remnant microcarcinoma in the lymph node.

Conclusion

Carcinoma at the colostomy site is uncommon, careful stomal observation and examination for surveillance should be done during each follow-up and we suggest early biopsy and colonoscopy in case of suspicion. We must also educate stoma care nurses and patients about the possibility of stomal site growth which aids in early presentation. Segmental colonic resection with skin margin and adjuvant therapy is the preferred option in such presentations.

Acknowledgments

None.

Conflict of interest

None.

Financial support

None.

Ethics statement

None.

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