International Surgery Journal
*Manne D et al. Int Surg J. 2025 Oct;12(10):1849-1851*
http://www.ijsurgery.com
pISSN 2349-3305 | eISSN 2349-2902

DOI: https://dx.doi.org/10.18203/2349-2902.isj20253045

**Case Report**

# A rare case of metastatic carcinoma at the colostomy site after abdominoperineal resection

**Dheeraj Manne*, Tirou Aroul, Robinson Smile**

Department of General Surgery, Mahatma Gandhi Medical College & Research Institute, Pondicherry, India

**Received:** 23 July 2025
**Accepted:** 04 September 2025

***Correspondence:**
Dr. Dheeraj Manne,
E-mail: dheeraj2365@gmail.com



## ABSTRACT

Metastatic carcinoma at the colostomy site after abdominoperineal resection is very rare and only a handful of case reports have been reported in literature. In this case, 40 years old woman who underwent abdominoperineal resection for rectal cancer presented a year later with stomal nodule and stricture. A portion of the colon with the mesentery, the stoma and the surrounding skin were excised and a new end stoma was created in the transverse colon. Biopsy revealed adenocarcinoma. A stomal nodule may be missed in follow up until the patient presents with symptoms. Stomal recurrence should therefore be considered whenever the patient presents with stomal nodule, ulceration, bleeding or obstruction

**Keywords:** Abdominoperineal resection, Colostomy stoma recurrence, Colorectal carcinoma, Metachronous adenocarcinoma, Metastasis

## INTRODUCTION

Metastasis at the terminal colostomy site after Abdominoperineal resection is rarely encountered. The common sites of metastasis are liver, lung, peritoneum, pelvis and bone. Review of literature reports only few cases.[1]

However, the exact mechanism of spread is not known. Tumor metastasis mainly occurs via the lymphatic and hematogenous routes. Recurrence at the colostomy site has been attributed to several etiological factors like adenoma-carcinoma sequence, de-novo metaplasia, bile acids, alteration in intestinal flora due to prolonged contact with stools and stomal strictures.[2]

The interval between the initial surgery and stomal metastasis is variable.[1,3] We report a case of a metastatic adenocarcinoma at the terminal colostomy site one year after the patient underwent Abdominoperineal resection followed by adjuvant chemo-radiation therapy for rectal cancer.

## CASE REPORT

A 40 years old woman presented with malignant rectal obstruction. She underwent sigmoid loop colostomy followed by R0 abdominoperineal resection for the rectal carcinoma later. Biopsy of the specimen revealed poorly differentiated adenocarcinoma, resected margins free of tumor with 11 lymphnodes positive for tumor deposits. The disease was staged as pT3N2bM0. The patient received adjuvant chemo-radiation therapy.

Twelve months later, the patient presented with increase in size of the end colostomy, pain and difficulty in passing stools. On examination, the colostomy was not admitting the index finger and a firm nodule was palpable with near total obstruction. A biopsy was taken from the nodule which revealed Adenocarcinoma. PET-CT scan revealed a hotspot at the colostomy site and in the proximal colon (Figure 1, 2). Wide resection of the colostomy and colon with adequate clear margin was carried out and an end colostomy was made in the transverse colon. Biopsy of the excised specimen

confirmed adenocarcinoma (Figure 3), 4 pericolic lymph nodes positive for tumor deposits with proximal and radial resected margins free of tumor and staged as pT3N2a.

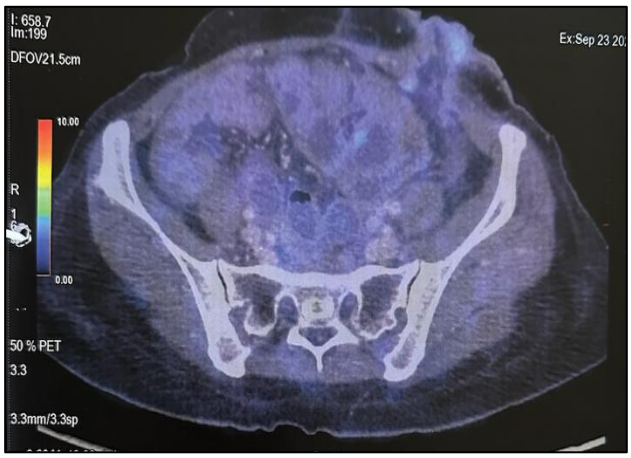


**Figure 1: PET scan of hotspot at the colostomy site and in the proximal colon.**

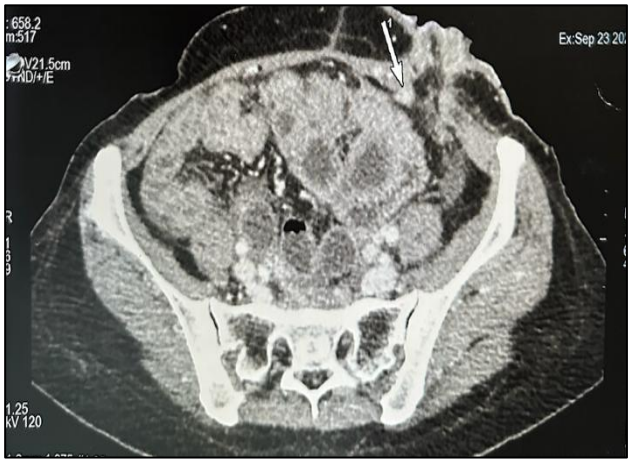


**Figure 2: CT scan of nodule at the colostomy site marked with an arrow.**

## DISCUSSION

Synchronous and Metachronous lesions of the colon are not uncommon after Abdominoperineal resection for rectal carcinomas but isolated metastasis or recurrence at the stomal site is rarely seen. Review of literature shows only 14 cases.[4,5] Most patients reported in literature had undergone Abdominoperineal resection and end colostomy.

Metastasis occurred usually within 2 years from the primary surgery but can vary from 4 to 30 years.[6] In our patient, the metastasis occurred within 2 years. Stomal metastasis presents with symptoms of thickening of stoma, ulceration, bleeding, obstruction. In all the studies, the patient presented late to the surgeon due to the slow progression of the disease. Lack of awareness among physicians and late reporting by the patient delays the diagnosis. Chintamani et al report a patient who had stomal obstruction dilated for more than a year before a biopsy confirmed stomal site recurrence.[1] Lymphatic, hematogenous, direct routes of disease in colorectal carcinomas is widely known and well understood. Reasons for metastasis at the colostomy site after abdominoperineal resection is unclear and several hypotheses have been suggested. These hypotheses include adenoma-carcinoma sequence of an undetected concomitant polyp, bile acid stimulation, constant physical damage by the stool, injury to colonic mucosa due to exposure and constant compression, spread from lymph nodes at the inferior mesenteric artery origin during resection.[1,2,7] De-novo cancer rather than local recurrence has been suggested to be the probable cause as it takes about 5-10 years to develop adenocarcinoma from an adenoma.[4]

There is no consensus regarding the treatment for recurrence at the colostomy site. Lymph node dissection can prevent poor oncological outcomes which may occur due to micro metastasis in lymphnodes.[4] According to National Comprehensive Cancer Network (NCCN) guidelines, the treatment option is wide local excision of the stoma including the surrounding skin and colon with clear margins of resection followed by adjuvant chemotherapy.[8] Prognosis of patients with stomal recurrence is generally poor as reported in various studies.[5] Surgical resection followed by adjuvant chemoradiation therapy can help achieve satisfactory outcomes for selected patients.

## CONCLUSION

Isolated stomal metastasis after abdominoperineal resection is a rare entity with very few cases reported in literature. Surgeons should be educated about the need for careful examination of the stoma and identification of symptoms related to colostomy site recurrence like nodules, ulceration, bleeding and obstruction during follow up. Surgeons should maintain a high index of suspicion. Since stomal site recurrences can occur long after the regular follow up period, patients and ostomates should also be trained to monitor the stoma for possible tumors.

*Funding: No funding sources*
*Conflict of interest: None declared*
*Ethical approval: Not required*

## REFERENCES

1. Chintamani, Singhal V, Bansal A, Bhatnagar D, Saxena S. Isolated colostomy site recurrence in rectal cancer-two cases with review of literature. World J Surg Oncol. 2007;13;5(1):52.
2. Takami M, Hanada M, Kimura M, Takeuchi N, Takada T. Adenocarcinoma arising at a colostomy

site: Report of a case. Dis Colon Rectum. 1983;26(1):27.
3. Shibuya T, Uchiyama K, Kokuma M, Shioya T, Watanabe Y, Moriyama Y, et al. Metachronous adenocarcinoma occurring at a colostomy site after abdominoperineal resection for rectal carcinoma. J Gastroenterol. 2002;1;37(5):387–90.
4. Choi YS, Lee K young, Park YY, Kim HJ, Lee J. Metachronous carcinoma at the colostomy site after abdominoperineal resection of rectal cancer: a case report. Ann Coloproctol. 2021;27;39(2):175–7.
5. Maeda C, Hidaka E, Shimada M, Shimada S, Nakahara K, Takayanagi D, et al. Transverse colon cancer occurring at a colostomy site 35 years after colostomy: a case report. World J Surg Oncol. 2015;6;13(1):171.
6. Yaeger R, Cowell E, Chou JF, Gewirtz AN, Borsu L, Vakiani E, et al. RAS Mutations Affect Pattern of Metastatic Spread and Increase Propensity for Brain Metastasis in Colorectal Cancer. Cancer. 2015;121(8):1195–203.
7. Vijayasekar C, Noormohamed S, Cheetham MJ. Late recurrence of large peri-stomal metastasis following abdomino-perineal resection of rectal cancer. World J Surg Oncol. 2008;5;6:96.
8. Lazzaro A, Srinivasan M, Assi H, Lazzaro AP. Cancer of unknown primary: a case report on the recognition of its clinical entity and standard of care management. Cureus. 2025;17(6):875.

**Cite this article as:** Manne D, Aroul T, Smile R. A rare case of metastatic carcinoma at the colostomy site after abdominoperineal resection. Int Surg J 2025;12:1849-51.