

## Simultaneous Extended Right Hemicolectomy and Anterior Resection For Synchronous Colon Cancer: A Case Report

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### ABSTRACT

**Aim:** The aim of this case report was to study the importance of comprehensive examinations of synchronous cancer to avoid repeated surgeries and improved the outcome. **Case Presentation:** a 77-years-old man with sigmoid adenocarcinoma and ascending colon mass was suspected to be a synchronous tumor. The patient complained difficulty in defecation accompanied with weight loss and change of bowel habit, especially hardened and bloody stool. Abdominal CT-scan showed thickened irregular diffuse along the ascending colon to caecum and colonoscopy found circular mass, 30-35cm from the anal verge. The extended right hemicolectomy and anterior resection were performed. There were no notable issues, hence we performed ileal colon and colorectal anastomoses. Pathological result for both specimens were adenocarcinoma. Patient was uneventful and discharged 4 days after the surgery. **Conclusion:** Synchronous CRC was an independent prognostic factor associated with poor overall survival and disease free survival. The primary treatment of synchronous colorectal cancer is surgical resection. Simultaneous right colectomy and anterior resection can be considered for synchronous colorectal malignancies to avoid repeated surgeries, ensuring a similar or potentially improved outcome.

**Keyword:** synchronous tumor, colon cancer, adenocarcinoma.

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### INTRODUCTION

Colorectal cancer ranks as the third most prevalent cancer globally, making up about 10% of all cancer cases. Meanwhile, synchronous colorectal cancers are less frequent and can complicate treatment plans.<sup>1,2</sup> Synchronous colorectal cancer is diagnosed when two or more primary colorectal lesions are identified either simultaneously or within six months of the initial diagnosis. Synchronous colorectal cancer commonly occurs in the sigmoid colon and rectum. More often, it tends to involve the proximal colon, particularly the ascending colon compared to solitary colorectal carcinomas.<sup>3</sup> In this case, Appropriate surgical resection with follow-up colonoscopy examination is recommended. But,

colonoscopy alone may impossible to detect synchronous colorectal carcinoma due to the stenosing colorectal carcinoma, small size, or proximity to the main cancer. Therefore, a CT-scan examination is necessary to detect the presence of synchronous cancer.<sup>4</sup> Prompt diagnosis of synchronous colorectal lesions can provide better insight into the treatment plan and potentially prevent repeated surgical resections after the initial treatment.<sup>2</sup>

### CASE PRESENTATION

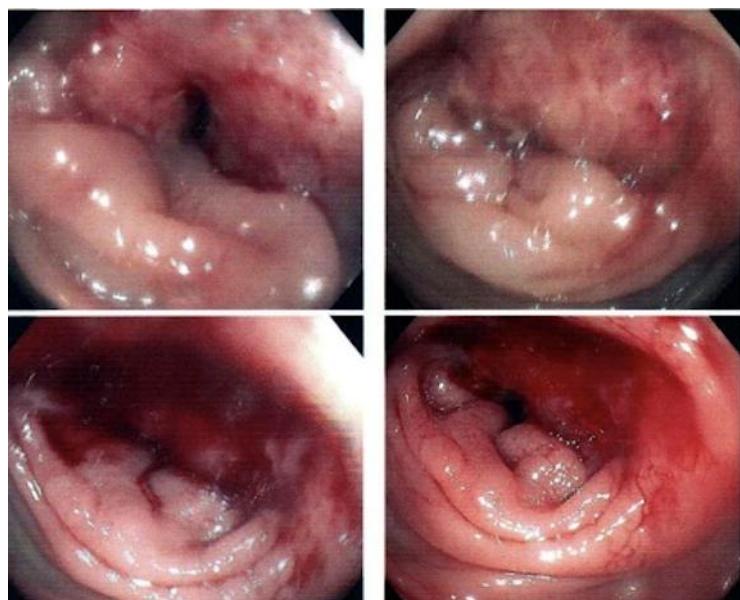
A 77-year-old male came with a chief complaint of difficulty in defecation accompanied with weight loss and change of bowel habit, especially hardened consistency, pebble-shaped and presence of blood in stool. Prior to the complaint, patient also had

diarrhea with a presence of blood in the stool. Patient had no difficulty to pass a gas. There was no problem with urination and his appetite was still normal. However, patient also admitted to having sudden weight loss, around 8 kgs in the past 3 months.

From initial physical examination, the patient was normotensive, normothermic and had normal heart rate. From the abdominal examination, there was no palpable mass, normal bowel sound, and tympanic percussion

finding on all regions of the abdomen. No abnormal finding in rectal toucher. Laboratory results showed mild anemia.

The colonoscopy found a circular mass, around 30-35cm from the anal canal. Then, we performed biopsy with result a low grade adenocarcinoma of the sigmoid (Figure 1). Abdominal CT-scan screening revealed a thickened irregular diffuse along the ascending colon to caecum (Figure 2).



**Figure 1.** Colonoscopy showed a circular mass in the sigmoid colon, 30-35 cm from the anal verge



**Figure 2.** CT Scan showed an irregular diffuse thickening in the ascending colon up to the cecum.

After the series of screenings, we decided to perform a surgery. During the procedure, we found tumor in the ascending colon which infiltrated the sigmoid and ileum. Therefore, we decided to do right extended hemicolecotomy, continued with anastomose of the ileum to transverse colon (Figure 3). Upon further evaluation of intra-abdominal cavity, a

tumor was identified on the sigmoid colon. This finding prompted the decision to proceed with a low anterior resection, followed by a rectosigmoid anastomosis. We placed two drains within the subhepatic space and pelvic cavity. Anatomical pathology examination was conducted to assess the resected tissue.

Postoperatively, the patient exhibited no significant complications and was transferred to recovery unit in stable condition. Laboratory tests conducted after the procedure were within normal limits, with no indications of infection or sepsis. On first day after procedure, the patients gad mild abdominal pain consistent with expected postoperative recovery. The patient was discharged on day 4<sup>th</sup> after surgery in stable condition. Histopathological examination subsequently revealed an adenocarcinoma of the ascending colon. Based on these findings, the case was concluded to represent a synchronous tumor.



**Figure 3.** Specimen of right hemicolectomy

## DISCUSSION

Colorectal cancer is the third most common malignancy worldwide, accounting for approximately 10% of all cancer cases. However, synchronous colorectal carcinoma occurs in only about 3.5% of cases.<sup>3</sup> Synchronous colorectal cancer is defined as the presence of two or more primary colorectal tumors diagnosed either simultaneously or

within six months of the initial diagnosis. This condition may complicate treatment planning and increase the likelihood of requiring additional surgical interventions.<sup>1,2</sup>

The diagnosis of synchronous malignancies is crucial for optimal treatment planning and may prevent the need for reoperation due to advanced metachronous cancers. In our case, the patient had difficulty in defecation accompanied with weight loss and change of bowel habit which suggest a problem in lower part of abdomen. Significant weight loss also an essential sign of malignancy process. Based on this clinical suspicion, we performed colonoscopy and found a circular mass, around 30-35cm from the anal canal. Then, we continued the screening with abdominal CT-scan and found a thickened irregular diffuse along the ascending colon to caecum. The examination we conducted is consistent with the recommended supplementary diagnostic tests. In this case, we successfully diagnosed the presence of synchronous colorectal carcinoma in the patient, enabling the formulation of an appropriate treatment plan.

The optimal surgical management of patients with synchronous colorectal cancer (CRC) is still debated. Some experts advocate for total or subtotal colectomy, while others recommend targeted surgical resection complemented by regular colonoscopic surveillance. Another option is intraoperative colonoscopy, which allows accurate localization of early mucosal tumors and detection of additional lesions in the proximal colon that may not have been examined, particularly in cases of left-sided obstruction.<sup>5</sup> This approach offers real-time, detailed visualization of lesions during surgery, enhancing the evaluation of disease extent. When one of the synchronous tumors is at an early stage, colonoscopic removal—such as endoscopic mucosal or submucosal

dissection—can be sufficient. Conversely, if the cancers are advanced and widely separated, resection of both colonic segments may be necessary. In our case, because the tumors were far apart, we performed an extended right hemicolectomy with ileotransverse anastomosis, along with a low anterior resection followed by rectosigmoid anastomosis.<sup>4</sup>

Long-term clinical monitoring is often advised for synchronous CRC, depending on available facilities. In this case, the patient recovered well after surgery, returned for follow-up in good condition, and subsequently continued treatment with chemotherapy.

## CONCLUSION

A more thorough evaluation and examination are required to establish a diagnosis of synchronous colorectal cancer. Therefore, using both CT-scan and colonoscopy are essential for the early detection of colorectal cancer. Prompt diagnosis of synchronous colorectal lesions can provide doctors with better insight into the patient's treatment plan and potentially prevent repeat surgical resections after the initial treatment.

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## DISCLOSURE

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