

Case Report

Synchronous colorectal cancer: a case report

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ABSTRACT

Synchronous colorectal cancer (CRCs) refers to more than 1 primary CRCs detected in a single patient simultaneously or within 6 months of the initial diagnosis. A 76-year-old men presented with persistent constipation since 1 month ago. Abdominal computed tomography (CT) showed an irregular mass in the right lower middle abdomen. Intraoperatively, the synchronous CRCs was found, therefore a subtotal colectomy was performed and the diagnosis was confirmed by histopathological examination. Synchronous CRCs is relatively rare. The CT can detect tumor, node, and metastasis (TNM) staging of colon cancer. Extensive resection was performed taking into account the patients preferences, number and location of tumors and postoperative plan. Surgeons should be familiar with all standard colorectal tumor surgical procedures, to avoid technical difficulties when surgical plans are changed for incidentaloma resection. Failure to identify synchronous colorectal carcinoma before surgery can lead to inadequate therapeutic procedures.

Keywords: Synchronous CRCs, Laparotomy, Case report

INTRODUCTION

Synchronous colorectal cancer (CRCs) refers to more than one primary CRCs detected in a single patient simultaneously or within 6 months of the initial diagnosis.¹ According to G2020, CRC is the third most common cancer, and the second leading cause of mortality cancer worldwide. In Indonesia 2020, colon cancer was the sixth most commonly diagnosed cancer (17,368 new cases) and was ranked eighth in cancer-related deaths (9,444 deaths).² Risk factors for synchronous tumors has been frequently reported male sex, family history, advanced age (above 70 years) and the presence of synchronous adenomas. Passman et al showed that CRCs (index and second CRC) were more often localised in the right colon, compared with single CRCs; however, the statistic were calculated from univariate analyses.³ A preoperative diagnosis of synchronous CRCs is important because it may influence clinical decision making regarding the type and extension of the surgical procedure and the use of additional treatment modalities.⁴

If synchronous detectable at surgery, sometimes, need to changed of the initially planned operation. Some authors have suggested that total/subtotal colectomy should be performed. Passman et al recommended a more extensive resection for lesions in adjacent segments. Some authors have recommended multiple resections aimed at retaining the normal colon. Hence, there has been little agreement among surgeons regarding the appropriate surgical treatment for synchronous cancers located in separate segments.^{1,2} Surgical treatment is the primary therapeutic approach, followed by chemotherapy. The prognosis of patients with synchronous carcinoma has been documented to be better, the same or worse than those with solitary CCR.^{5,6} Kato et al regarded that this variation is likely caused by differences in sample size, length of follow-up, and other factors such as different proportion of advanced vs. early tumors and, therefore, needs to be interpreted with caution.⁷

CASE REPORT

A 76-year-old men, was presented to digestive surgery

department with constipation, continuing for months and have to be affected by laxatives. The presence of small-volume stools and fecal blood associated with straining on bowel movement and intermittent right lower quadrant abdominal pain since three months ago. The five days ago. The last five days, the patient has intermittent fever, nausea, and appetite loss. Complaints of generalized weakness, and significant weight loss ± 44 lb since 6 months ago. He had a history of diarrhea five months prior admission to hospital. History of smoking habits recorded for 35 years, consumption of one pack/day, but he has stopped smoking. Patient prefers to eat meat and fish compared to vegetables and fruits (low fiber foods). The patient has no family history of cancer or hereditary bowel disorders. On physical examination found pale conjunctiva, abdominal distension, decreased bowel sounds, and a mass palpable in right hypochondriac-iliac region. Laboratory tests showed the following: erythrocyte sedimentation rate (ESR) 40 mm/h, leukocyte 20,000/uL, hemoglobin 9.7 gr/dl; sodium 131 meq/l; serum potassium 3.5 meq/l; and serum albumin 2.8 g/dl. A non contrast CT image shows an irregular mass with signs of inflammation in the surrounding of mesentery and omentum in the right lower middle abdomen, based on these findings, the patient was diagnosed with ascending colon cancer, hypoalbuminemia and sepsis (Figure 1).

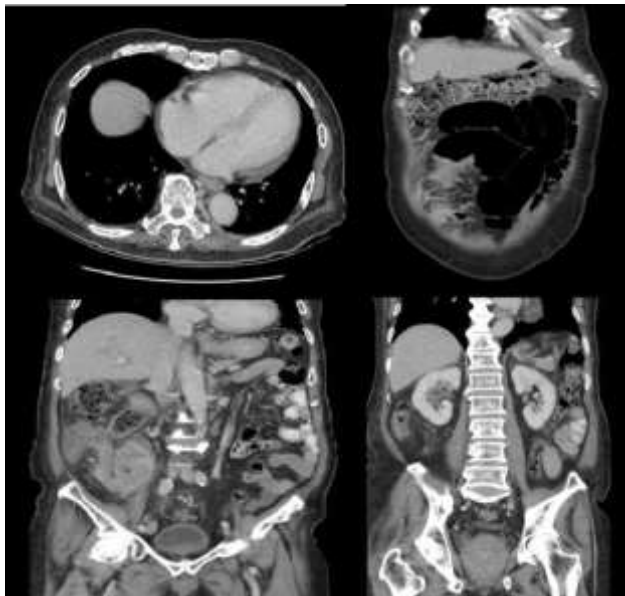


Figure 1: Preoperative CT scan of the abdomen without contrast, a tumor mass appears in the lower right abdomen.

Intraoperatively, there was a mass in the ascending colon then evaluated the entire digestive tract, a palpable mass also was found in the sigmoid colon therefore the surgical procedure was changed to subtotal colectomy. According to the procedure, dextra colic artery and middle colic artery were ligated and cut. Release ascending colon from hepatic flexure, release transverse colon up to splenic flexures, and then resected 20 cm from the terminal ileum

up to 5 cm from the sigmoid colon, followed by an ileosigmoid anastomosis using a stapler. Operative time was 180 minutes and estimated the blood loss was ± 500 CC. The histological diagnosis of a biopsy from the both tumors were well or moderately differentiated adenocarcinoma that had invaded the subserosa of the colon. There are no serious complications such as anastomotic leakage occurred during the postoperative hospital stay. The patient recovered well for 10 days after surgery (Figure 2).

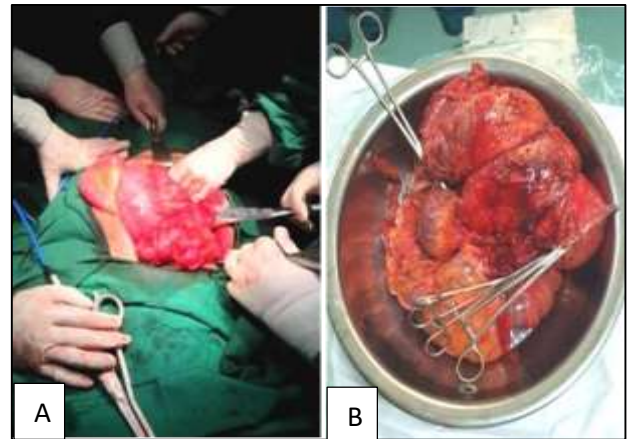


Figure 2 (A and B): Subtotal colectomy for synchronous colon, colorectal resection with synchronous carcinoma.

DISCUSSION

Synchronous CRCs is a relatively rare condition. According to the pedoman nasional pelayanan kedokteran (PNPK), three to 7% of CRCs are synchronous cancers and 25% are synchronous adenomas.⁸ As old age is significantly associated with an increased incidence of synchronous colorectal, from the age of 70 years and higher male sexes than women.⁹ According to Warren and Gates criteria; (1) pathologically proven adenocarcinoma, (2) proven to be distinct and (3) the probability of one being a metastasis of the other must be excluded (4) the synchronous lesions must be diagnosed at the same time or within 6 months of the initial diagnosis. The most pathologically advanced lesion is considered the index tumor, while the others are designated companion tumors.^{7,10} In this case, the predisposing factors that most supported the diagnosis of CRC were the patient's age, altered bowel habits like diarrhea/constipation with symptoms of intermittent abdominal pain, per-rectal bleeding associated with iron deficiency anemia and the presence of a mass from the CT scan of the abdomen. In fact, CRC has no obvious early symptoms especially in early stages until the tumor growth to a significant size. When compared to solitary colorectal carcinoma, synchronous carcinoma appears to more often involve the proximal portion of the colon; in particular the ascending colon. A possible explanation on this phenomenon is a prolonged asymptomatic period in the right colon and/or with history of hereditary bowel disorders.^{8,11}

During the last few decades, colonoscopy was considered the best modality for detecting synchronous CRC. Colonoscopy has a sensitivity of 91% and specificity of 94%, is the highest for detecting cancer and premalignant adenomas and other colonic diseases. If the obstruction, it should be continued with a barium enema.^{8,12} Currently, CT colonography is recommended for evaluation of the entire colon, especially detecting synchronous in the proximal colon.¹³ As described earlier, while colonoscopy, barium enema, and CT colonography are widely accepted as the principle screening tools for the detection of CRCs, they may be contraindicated and therefore not frequently performed during the hospitalization of patients in need of emergent resection.¹⁴ According to the national comprehensive cancer network (NCCN) guidelines for staging of colon cancers appropriate for resection, preoperative CT of the abdomen and pelvis for staging purposes is routinely used in the workup of colon cancers.¹⁵

Treatment of synchronous CRC is recommended for surgical resection. Difficulty in identifying the lesion during colectomy may lead to a change in the resection from the initial plan, especially when synchronic lesions are found. In this case, a subtotal colorectal laparotomy was performed after synchronous CRCs was confirmed intraoperatively. Some surgeons suggest that a subtotal/total colectomy should be performed even when the synchronous lesions are in separate segments. The reasons are to avoid the high risk of anastomotic leakage, followup examinations, reintervention surgical and an overall poorer prognosis. In addition, a study by Wraps, revealed that bilateral synchronous cancers most frequently underwent subtotal colectomy/proctocolectomy and experienced adverse complications 30 days postoperatively.¹⁷ While the other surgeon performed two separate resections with two anastomoses to retain normal colon length and to avoid diarrhea after subtotal colectomy.¹⁸ We have corrected hypoalbuminemia and anemia before surgery because they are unusual and significant signs of poor postoperative prognosis. Based on the available evidence, from this case if the general condition of the patient is suitable for surgery or if the patient is at increased risk of anastomotic complications, such as in cases of malnutrition, comorbidities, sepsis, tumor number and location, then subtotal colectomy appears to be a justifiable option to achieve good short- and long-term outcomes. We performed an ileosigmoid anastomosis with a stapler and did not use a stoma. This is based on providing comfort to the patient and reducing further surgery.^{4,8,19}

CONCLUSION

Surgeons should understand all standard colorectal tumor surgical procedures, to avoid technical difficulties when surgical plans are changed for incidentaloma resection. Failure to detect synchronous CRC both before and/or during surgery can lead to inadequate therapeutic

procedures. Preoperative CT of the abdomen and pelvis for staging purposes is routinely used and capable preferred in the workup of colon cancers.

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