



Coexistence of colon cancer and diverticulitis complicated with diverticular abscess

Dursun Ozgur Karakas¹, Yavuz Ozdemir², Ahmet Ziya Balta², Ilker Sucullu²

ABSTRACT

Coexistence of a diverticular abscess and colorectal cancer is an extremely rare phenomenon. The clinical presentation and the extension of a diverticular abscess could cause mis-staging of colon cancer. We are presenting an overstaged colon cancer due to a diverticular abscess penetrating into the abdominal wall. A 65-year-old male patient with a history of an enlarging mass in the left lower quadrant of the abdomen was admitted to our service. Diagnostic studies revealed a sigmoid tumor communicating with an abdominal wall mass. The patient was clinically staged as T4 N1. Exploration revealed a diverticular abscess penetrating into the abdominal wall and a sigmoid tumor. Histopathological examination reported an intermediately differentiated T3 N0 adenocarcinoma of the sigmoid colon. After an uneventful postoperative recovery, the patient was referred to chemotherapy.

Key words: Colon cancer, diverticular abscess, diverticulitis

Introduction

Based on the idea that chronic inflammation leads to metaplasia and neoplastic changes, some authors suggest an increased incidence of colonic carcinoma in patients with diverticulosis and diverticulitis [1]. However, adenoma or adenocarcinoma located within a diverticulum is a very rare condition. Furthermore, coexistence of a diverticular abscess and colorectal cancer is an extremely rare phenomenon. The clinical presentation and the extension of a diverticular abscess could cause mis-staging of colon cancer. In this article, we are presenting a colon cancer accompanied by a diverticulitis complicated with a diverticular abscess. In

this case, colon cancer was overstaged because of the penetration of an abscess into the abdominal wall and lymphadenopathies.

Case Presentation

A 65-year-old male patient presented with a 15-day history of an enlarging mass in the left lower quadrant of the abdomen (Figure 1). He reported episodes of irregular fever and constipation during the 15 days. On admission he had fever (tympanic body temperature: 38°C) and tachycardia (pulse: 116 beats per minute). Abdominal examination revealed only an immobile swelling localized at the lower left quadrant. The patient had a deep anemia and leukocytosis. Total colonosco-

Author affiliations : ¹Department of General Surgery, Ağrı Military Hospital, Ağrı, Turkey ²Department of General Surgery, Gulhane Military Medical Academy, Haydarpasa Training Hospital, Istanbul, Turkey

Correspondence : Yavuz Ozdemir, MD, Department of General Surgery, Gulhane Military Medical Academy, Haydarpasa Training Hospital, Istanbul, Turkey
e-mail: dryozdemir@yahoo.com

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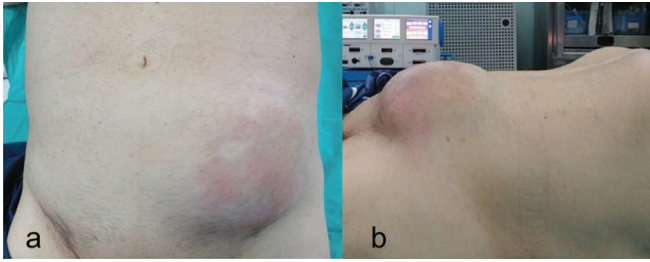


Figure 1. Enlarging mass on the left lower quadrant of the abdomen (a) anterior view, (b) lateral view.

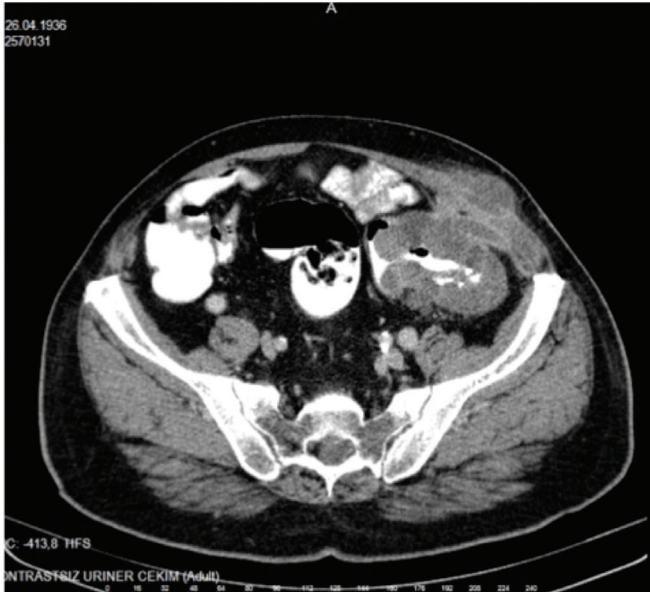


Figure 2. Tomographic view of the mass.

py was performed to evaluate anemia and constipation, and a sigmoid tumor with an incomplete obstruction and diverticulosis was found. Histopathological evaluations of the biopsies were reported as adenocarcinoma. Computerized Tomography (CT) revealed that the abdominal mass was communicating with a large (10x5 cm) sigmoid mass and there were multiple mesenteric lymphadenopathies (Figure 2). The patient was clinically staged as T4 N1 (Dukes C). He was resuscitated with intravenous fluids and then shifted to the operation theater. Exploration revealed a diverticular abscess penetrating into the abdominal wall and a sigmoid tumor (Figure 3). Anterior resection of the sigmoid colon was performed on the patient. Histopathological examination reported an intermediately differentiated Dukes B (T3 N0) adenocarcinoma of the sigmoid colon. The carcinoma had invaded the subserosal fatty tissue but hadn't penetrated the serosal surface. None of the lymph nodes removed contained metastatic deposits. After an uneventful postoperative recovery, the patient was referred to chemotherapy.

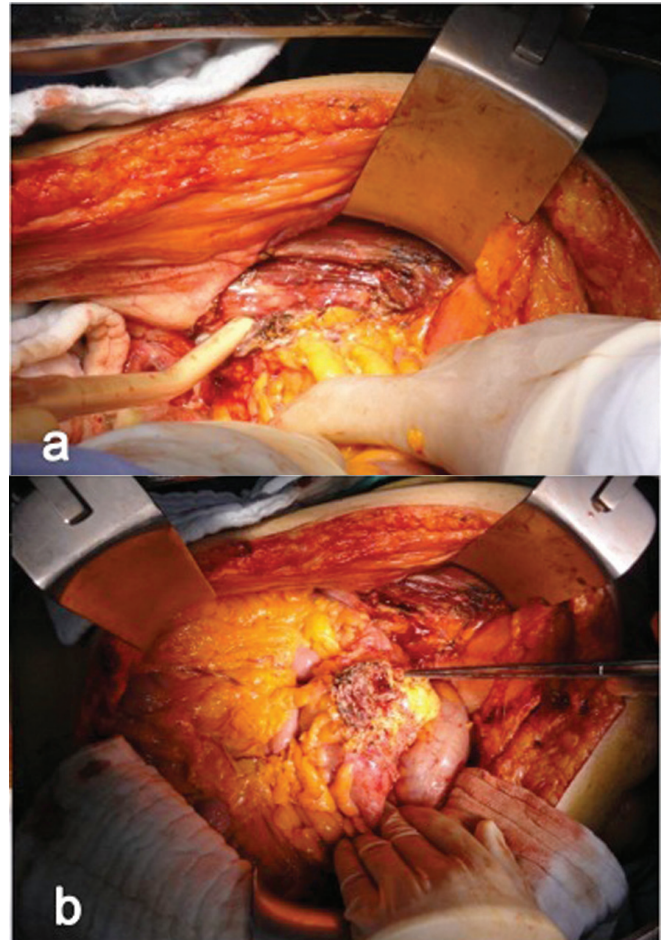


Figure 3. Sigmoid tumor complicated by diverticulitis (a) drainage of abscess localized in the abdominal wall, (b) sigmoid tumor and perforated diverticula.

Discussion

Although colonic diverticulosis and cancer are common diseases in Western countries, cancer associated with diverticulitis is extremely rare. Few studies, from different countries, have previously reported the association between diverticulitis and colon cancer in the literature [2]; however, to the best of our knowledge, this is the first case with a coexistence of diverticulitis presenting as an anterior abdominal wall abscess and colon cancer.

Risk factors such as age and lack of dietary fiber are common for both colonic neoplasia and diverticular disease, but little is known about the association between these diseases. An increased risk of left-sided colonic cancer in patients with diverticular disease has been reported in different studies [3]. Stefansson et al. suggested that the causal association could be explained by the presence of an inflammatory process, increasing the risk of a malignant transformation [3]. The other possible explanation is the high concentration of

bacteria in the lumen of the left colon, some of which are producing carcinogens.

Computed tomography (CT) scans are useful for assessing patients with colorectal cancer and diverticular disease. Colonic diverticulitis and colon cancer have a similar appearance of segmental thickening of the colonic wall with various degrees of pericolic infiltration on the CT scan. Diverticulitis has been thought to have thinner and longer colonic involvement with more pericolic inflammatory change than colon cancer. But overlapping CT features are not uncommon [4]. Although CT can make accurate diagnoses in the majority of patients with colonic diverticulitis, there is still some difficulty in excluding colon cancer.

Abdominal CT is also important for preoperative staging of colorectal cancer. Its ability to detect advanced colorectal cancer is substantial, and findings such as distant metastasis, peritoneal carcinomatosis and locally advanced colon cancer offer information that may change the treatment plan. Presently, adequate staging with CT before treatment is already considered the standard in international colorectal cancer guidelines [5]. In our patient, according to the CT findings, the sigmoid tumor was a locally advanced tumor with the involvement of the anterior abdominal wall and mesenteric lymphadenopathies. Subsequent laparotomy revealed a diverticular abscess penetrating into the anterior abdominal wall. The tumor was not penetrating the serosal surface, and none of the removed lymph nodes contained metastatic lymph nodes.

As a conclusion, coexistence of colon cancer and a diverticular abscess is a very rare situation. Regarding an enlarging abdominal mass caused by the penetration of a diverticular abscess, the presenting symptom and inflammatory process may complicate preoperative staging. Detailed history and careful physical examination must be completed with radiological and endoscopic evaluation.

Conflict of interest statement

The authors have no conflicts of interest to declare.

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