Case report

Synchronous early primary adenocarcinoma of both rectum and gallbladder. Report of a case

Timothy Sakellaridis*, Stavros Mathioulakis and Christos Antiochos

Address: Surgical Department, 401 General Military Hospital of Athens, Athens, Greece
Email: Timothy Sakellaridis* - SakellaridisT@in.gr; Stavros Mathioulakis - menia367@yahoo.com; Christos Antiochos - hkigka@hotmail.com
* Corresponding author

Published: 14 September 2005
Received: 04 August 2005
Accepted: 14 September 2005

Abstract

**Background:** Synchronous early primary cancers are rare and in addition synchronous adenocarcinoma of both rectum and gallbladder is extremely rare.

**Case report:** We report an unusual case of synchronous early primary adenocarcinoma of rectum and gallbladder. The patient was a 72-year-old woman with complaints of bloody stools and constipation. An endoscopy revealed adenocarcinoma of the lower rectum. A thorough preoperative investigation showed also cholelithiasis. The patient underwent abdominoperineal resection and cholecystectomy. The histopathological diagnosis was well to middle differentiate adenocarcinoma of the gallbladder (T2, N0, M0; stage II) and middle differentiate adenocarcinoma of the rectum (T2, N0, M0; stage II).

**Conclusion:** For the cases of extracolonic primary cancer associated with colorectal primary carcinoma, Warren and Gates’ diagnostic criteria are used. All patients with colorectal carcinoma, should undergo a throughout preoperative examination to exclude the possibility of synchronous early primary cancers.

Introduction

Synchronous early primary cancers are rare. In recent years multiple primary tumors have been documented more frequently. A review of autopsies of 659 cases of multiple primary tumors showed the colon to be the organ most frequently involved, especially among the aged [1,2].

Colorectal cancer is the third most common cancer in males and females. The cumulative lifetime risk of developing colorectal cancer is about 6%. However, it still accounts for 11% of cancer deaths. The risk of colorectal cancer increases with age. Although carcinoma of the gall-bladder is a rare tumor, it is the most common malignancy of the biliary system and the fifth most common cancer of the gastrointestinal tract mostly among patients in their seventh and eighth decades.

We report a case of a female who presented with adenocarcinoma of rectum and cholelithiasis. The histopathology revealed early primary adenocarcinoma of both the rectum and gallbladder.
Case report
A 72-year-old Caucasian woman was complaining of bloody stools and constipation for three months. There was a palpable mass 3–4 cm from the anal verge. A colonoscopy showed a tumor 3 cm from the anal margin with no other indication of multiple synchronous tumors in the colon. Biopsies of the tumor were positive for adenocarcinoma. An investigation with upper gastrointestinal endoscopy, computed tomography of chest and abdomen showed cholelithiasis with thickening of gallbladder anterior wall (arrow in the figure 1). No evidence of metastatic disease documented. Blood examinations showed anemia (Ht: 28,5% and Hb: 9,5 g/dL) and the rest laboratory evaluation was normal. The carcinoembryonic antigen (CEA) was: 15,9 ng/ml (range 0,0–10,0). She had a cholecystectomy and abdominoperineal resection of the rectum. The histopathological diagnosis was a moderately differentiated adenocarcinoma of the gallbladder (T2, N0, M0; stage II) and differentiated moderately adenocarcinoma of the rectum (pT2, N0, M0 in TNM/UICC, stage A of the Dukes staging system and stage B1 of the modified Astler – Coller classification). No adjuvant chemotherapy was required post-operatively. The patient joined a five-year follow up programme and is doing well six months after surgery.

Discussion
Synchronous adenocarcinoma of both rectum and gallbladder is extremely rare. Review of the pertinent literature revealed no more than five cases worldwide [3-7]. Synchronous cancers are defined as those diagnosed at the same time or within six months; cancers are considered metachronous when the second tumor is diagnosed more than six months after the first1. For the cases of extracolonic primary cancer associated with colorectal primary carcinoma, Warren and Gates’ diagnostic criteria are used.

Figure 1
Computed tomography, showing cholelithiasis with thickening of gallbladder anterior wall (arrow in the figure).
[1]: 1) Each of the tumors have to present a definite picture of malignancy; 2) Each have to be distinct; and 3) The probability that one is metastatic from the other has to be excluded.

All patients with colorectal carcinoma, in addition to the history and physical examination, should undergo a throughout preoperative examination, which should include chest radiograph, complete blood cell count, liver function tests, electrolytes, urinalysis, carcinoembryonic antigen (CEA) determination, fecal occult blood testing (FOBT) (using Hemoccult or Hemoquant), full colonoscopy, double contrast barium enemas, endorectal ultrasound for rectal tumors and abdominopelvic computed tomography scan. In colorectal cancer patients without evidence of distant metastases, a complete meticulous surgical exploration should not be denied. When multiple lesions or evidence of distant metastases are found, the operation should be individualized according to the location, state of spread and the patient's condition. Postoperative follow-up should include a complete blood tests and throughout examination of the remainder colon at least every 6 months. Metachronous cancer may appear as long as 15 years after the first cancer has been removed [1]. Extracolonic primary cancer is reported more frequently in the skin, stomach, breast, urinary bladder and prostate, and it may occur as long as 17 years before, or 20 years after, the diagnosis of the colorectal cancer [1]. Those findings illustrate the pitfalls in assuming any lesion to be a metastasis or a recurrence without pathologic confirmation.

The prognosis of these patients appears to equal or to be only slightly worse than, that for a single colorectal cancer [1]. There have been evidence that in some cases this entity can be ascribed to a genetic defect or an unknown carcinogenic agent or be part of cancer family syndrome [4,8,9].

References
1. Lee TK, Barringer M, Myers RT, Sterchi JM: Multiple primary carcinomas of the colon and associated extracolonic primary malignant tumors. Ann Surg 1982, 195(4):501-7.
2. Arai T, Sawabe M, Takubo K, Kanazawa K, Esaki Y: Multiple colorectal cancers in the elderly: a retrospective study of both surgical and autopsy cases. Gastroenterol 2001, 36(1):748-52.
3. Kondo T, Ishi Y, Kobayashi S, Moriwaki M, Sakurai H, Okamura H, et al.: A case of triple simultaneous cancer of the esophagus, gallbladder and colon. Gan No Rinsho 1985, 31(14):1849-53.
4. Schmid KW, Glaser K, Wykypiel H, Feichtinger H: Synchronous adenocarcinoma of the transverse colon, the gallbladder and the vermiform appendix. Klin Wochenschr 66(21):1093-6. 1988 Nov 1
5. Tamura M, Shinagawa M, Funaki Y: Synchronous triple early cancers occurring in the stomach, colon and gallbladder. Asian J Surg 2003, 26(1):46-9.
6. Tomin R: Simultaneous cancer of the rectum and gallbladder. Srp Arh Celok Lek 1965, 93(3):323-7.
7. Yazawa K, Tsuge Y, Takahashi C, Ichijo M, Matsuzaki O: A case of synchronous triple early cancer occurring in the stomach, colon and gallbladder. Nippon Shokakibyo Gakkai Zassi 1997, 94(6):440-4.
8. Mosca F, Stracqualursi A, Lipari G, Persi A, Latteri S: Multiple primary malignant neoplasms. Report of a rare case with 5 metachronous tumors. Chir Ital 2001, 53(1):133-9.
9. Tokunaga A, Onda M, Shimizu Y, Yoshiyuki T, Nishi K, Matsukura N, et al.: Non-simultaneous primary cancers in five different organs in a case of family syndrome. Jpn J Cancer Res 1987, 78(3):242-50.