

Synchronous Colonic Carcinomas

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Citation

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Abstract

A 81 year old man presented with a 3 months history of change in the bowel habit in form of alternating diarrhoea with constipation, significant weight loss over the last 6 months, and generalized fatigability.

Laparotomy confirmed three cancers in the caecum, splenic flexure and rectosigmoid junction for which proctocolectomy and terminal ileostomy performed.

CASE REPORT

A 81 year old man presented with a 3 months history of change in the bowel habit in form of alternating diarrhoea with constipation, significant weight loss over the last 6 months, and generalized fatigability.

Clinical examination revealed anaemia with non tender soft abdomen, left upper abdominal mass detected but no definite right or left iliac fossa mass and no organomegaly.

Blood tests showed haemoglobin of 10.4 gm/dl white cell count of: 7.4×10^9

Mean cell volume of 80 fl, and mean cell haemoglobin concentration of 25.4 pg

Urea & electrolytes were normal, and total protein was 59gm/L

RADIOLOGICAL EXAMINATION

Chest x-ray, and plain abdominal x-ray showed no exciting features, while the

CT scan confirmed synchronous colonic tumours in the upper rectum and splenic flexure and the reporting radiologist failed to detect the ceecal carcinoma. Preoperative Colonoscopy not performed.

Laparotomy confirmed three cancers in the caecum, splenic flexure and rectosigmoid junction for which proctocolectomy and terminal ileostomy performed.

HISTOPATHOLOGY

1. Cecal tumour (4x4.5) cm confined to the ceecal wall Grading :> 50% mucinous, sparse lymphocytic reaction PT3 beyond muscularis propria.no lymph node metastasis T3 N0, Dukes B

2. Transverse colon :(9 x 5.5) cm Poor differentiation, T3NO, Dukes B

3. Rectosigmoid junction: (6 x 3) cm Penetrates peritoneum with tumour cells on the surface.PT4 N1

The patient did very well after surgery and he received Chemotherapy postoperatively.

Checking CT scan one year after operation reported as normal. The patient was well with no signs of recurrence 32 months after the operation.

Figure 1

Figure 1: preoperative plain abdomen



Figure 2

Figure 2: preoperative chest x-ray showed a pacemaker on the left side



Figure 3

Figure 3: CT scan showed ceecal tumour

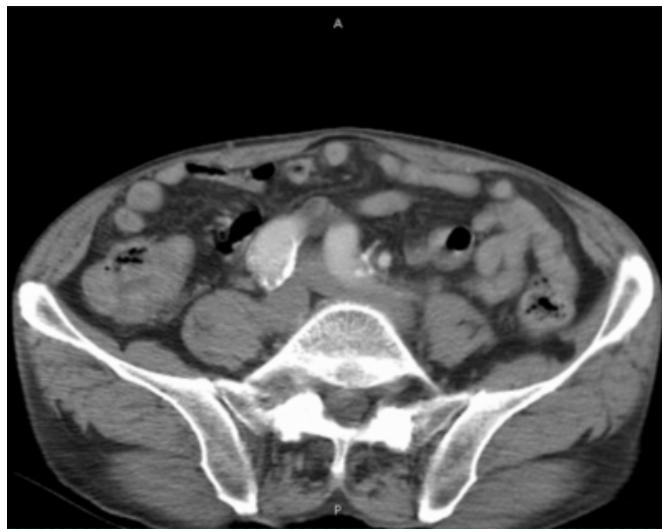


Figure 4

Figure 4: CT showed splenic flexure tumour



Figure 5

Figure 5: upper rectal tumour



DISCUSSION

Colonic carcinoma reported to be increasingly diagnosed in all developed countries (¹), in England & Wales more than 30,000 newly diagnosed and between the ages of 45 and 55, the incidence is about 25 per 100,000. Among those aged 75 and above, however, the rate is more than 10 times this: over 300 per 100,000 per year, while in USA Colorectal cancer (CRC) is the second most common cancer, primarily a disease of elderly (138,000 new cases / year) (^{2,3}). Women generally more liable to have cc.

In general, the risk of developing cancer increases with ageing (^{4, 5}). The median age of patients at diagnosis is over 70 year (⁶)

It appears that survival rates were poorer in the UK than in Europe as a whole (^{7, 8}) and five-year survival rate was 43%, but there was a marked north-south gradient (⁹).

It has been shown that patients in the age group of 65–74 were 1.8 times more likely to die following surgery compared with 3.5 times for 75 to 84 years and 5 times for over 85 years. These elderly cases with CRC are still presenting as surgical emergencies (obstruction and/or perforation) in up to 40% of cases, of which a small percent will represent synchronous or metachronous cc which is reported more frequently in patient after 8-10 years of first operation.

Although the reports on the frequency of multiple carcinomas of the colon and rectum have varied from 1-5% (^{10,11}), patients with a first tumour located within the proximal colon are at twice the risk for developing metachronous colorectal cancer (¹²) and the distribution of second tumours showed a significant shift from the distal to

the proximal site (¹³).

It is likely that tiny lesions, which were still in the adenoma phase, were not diagnosed by the endoscopy; it is also possible that the adenoma-carcinoma sequence was extremely fast. On the basis of this experience some authors recommend that patients with metachronous carcinoma undergo either frequent controls or a preventive subtotal colectomy. (^{14, 15,16}).

Synchronous colonic cancers are closely related with a genetic instability of the colonic mucosa and therefore the total colectomy is a safe manner to prevent metachronous lesions (¹⁷). The risk of metachronous carcinoma of the colon and rectum at 40 year follow-up evaluation is as high as 30 percent (¹⁸) that's why extensive use of preoperative colonoscopy is recommended in the evaluation of colorectal cancer, in order to promote detection of synchronous tumours, reduce the incidence of 'early metachronous' cancer and avoid malignant degeneration of adenomatous polyp.

DIAGNOSIS

There is evidence that the rate of mortality from colorectal cancer can be reduced by screening asymptomatic persons at average risk, beginning at the age of 50 years. (^{19, 20, 21, 22, 23}). Serrated adenomas are the precursors of at least 5.8% of colorectal cancers (²⁴).

The distribution of synchronous malignancies showed a significant shift from the proximal to the distal site, while in metachronous malignancies, the distribution of second tumours showed a significant shift from the distal to the proximal site (²⁵).

Many authors stressed the importance of preoperative pan colonoscopy for the identification of possible synchronous tumours (both benign and malignant) and long-lasting endoscopic follow-up for the detection of recurrent or metachronous lesions especially hereditary nonpolyposis colorectal carcinoma (HNPCC) (^{4, 26, 27})

After diagnosis, patients should be assessed for suitability for surgery, that's to be decided at multidisciplinary team meeting in addition to the proposal of other form of adjuvant therapy. Pelvic MRI & TRUS (transrectal ultrasound) will be performed to provide the most reliable information about both the

involvement of adjacent structures and of pelvic wall lymph node metastasis.

(₂₈). In patients with known colorectal cancer, preoperative investigation is unreliable for the detection of all synchronous neoplasia and those patients should have postoperative colonoscopy (₂₉)

TREATMENT

In general, first line of treatment for colorectal cancer is surgery.

Synchronous colonic cancers pose a question of what is the best way of treatment. Majority of authors recommended more aggressive approach in dealing with synchronous carcinoma.

Total mesorectal excision (TME) has become a new standard of operative treatment for rectal cancer replacing conventional resections (₃₀) also taken in consideration when dealing with synchronous cancerous lesion. The emergency surgery is associated with a significantly higher incidence of operative mortality at any age (15% on emergency Vs 5% Elective surgery (_{4,31}). According to the guidelines (₂₈) the surgeons should aim to achieve an operative mortality of less than 20% for emergency surgery and 5% for elective surgery for colorectal cancer and to achieve an overall clinical leak rate below 8% for anterior resection and below 4% for other types of resection

The presence of adenomas in a younger patient with a primary carcinoma of the colon and rectum represents a high risk of future carcinoma. Subtotal colectomy should be considered in these patients and may also improve the life-long follow-up evaluation required by allowing proctosigmoidoscopy alone to evaluate effectively the remaining colon and rectum. (₁₀) Its recommend an extensive use of preoperative colonoscopy and a careful intraoperative exploration of the viscera. It is also important that patients undergo periodical postoperative endoscopic controls (₃₂)

In view of the metachronous carcinoma risk after first resection, it seems to be the best way of management is radical resection in form of TC, STC or proctocolectomy depending on the sites of the lesion.

There is no doubt that the presence of known synchronous carcinomas in separate segments of the colon constitutes a clear indication for subtotal colectomy (STC) as the procedure of choice. The combination of a primary malignant tumor and multiple scattered polyps also is a strong indication. (_{33,34})

PROGNOSIS

Patients with synchronous tumors did not show appreciable differences in survival when compared with individuals who had single neoplasms. In contrast, a poor clinical outcome was observed in patients with metachronous tumors after the development of the second carcinoma (₁₀)

FOLLOW UP

As total or subtotal colectomy performed for these patients, therefore the follow up will be by tumour markers, CT scan, PET scan and MRI.

CONCLUSION

Radical resection in form of total, subtotal colectomy, and Proctocolectomy may be the best choice for synchronous colonic cancer.

Intraoperative meticulous search for a second colonic cancer and the postoperative colonoscopy are important to detect the synchronous cancers and to reduce the incidence of the metachronous lesions.

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