CASE REPORT

Caecal metastasis from a primary small-cell lung carcinoma

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Small bowel metastases from a primary lung carcinoma are rare. We report a case of a 59-year-old male with a primary small-cell lung carcinoma who developed anaemia and bowel symptoms. On colonoscopic examination he was found to have a tumour in the caecum near the ileocaecal valve, which was biopsied, revealing small neuroendocrine tumour cells. The patient then underwent systemic chemotherapy, which achieved a reduction in the size of the primary lung tumour and an improvement in his bowel symptoms. It is important that such a rare condition be recognised early as complicated intestinal metastases from a lung carcinoma can lead to high mortality rates and poor short-term outcome. With advances in chemotherapy and palliative care, patients with metastatic lung carcinoma can sometimes survive more than a year with reasonable quality of life.

Introduction

Lung cancer remains one of the most common cancers in Hong Kong and is associated with a significant number of cancer deaths each year. In 2004, lung cancer was the most common cancer in males and topped the list of cancers causing death in both males and females.[1] Most patients have late-stage disease when diagnosed since symptoms appear late in the course of the disease. Common sites of metastases include the brain, bone, liver, and contralateral lung. Advances in chemotherapy have resulted in patients surviving longer, even with metastatic disease.[2] Intestinal metastases from primary lung carcinoma are rare; there are only anecdotal reports of these in the literature. Nonetheless, the complications of intestinal metastases from lung cancer are associated with high mortality and a poor short-term prognosis and therefore need to be considered in lung cancer patients with unexplained anaemia and bowel symptoms.

Case report

A 59-year-old male presented with a 1-week history of diplopia when looking to the left side. He had smoked one pack of cigarettes a day for the past 12 years but his past health was otherwise unremarkable. He also complained of moderate right-sided flank pain and severe constipation for 10 days. Physical examination revealed a left sixth nerve palsy, multiple enlarged cervical lymph nodes, and a mildly tender right flank. A chest radiograph showed a left hilar mass. A computed tomographic (CT) scan of the neck, thorax, and abdomen showed markedly enlarged lymph nodes bilaterally in the submandibular and internal jugular chains and in the right supraclavicular region with the largest one measuring 5 x 3.5 cm. There were also multiple enlarged lymph nodes in the mediastinal region, a heterogeneously enhancing irregular soft tissue mass measuring 2.9 x 4.2 cm in the left lung hilum, as well as multiple enlarged lymph nodes in the abdomen. Magnetic resonance imaging (MRI) of the brain showed a 0.8-cm hypodense pontine lesion with wall enhancement, which appeared likely to be neoplastic. A core biopsy of the left neck lymph node yielded tumour cells strongly positive for CAM 5.2, synaptophysin and TTF-1, confirming a small-cell neuroendocrine carcinoma. In view of the smoking history and the prominent lung lesion seen on imaging, a diagnosis of metastatic small-cell lung carcinoma was made. Palliative chemotherapy and radiotherapy to the brain were planned.

The patient continued to complain of worsening right-sided abdominal pain and constipation while waiting for chemotherapy. An abdominal radiograph showed slightly dilated small bowel loops. Investigations revealed anaemia and a positive faecal occult blood test so a colonoscopy was performed, revealing a 3-cm ulcerating tumour in the caecum adjacent to the ileocaecal valve (Fig). Examination of tissue biopsied from the lesion showed small-cell neuroendocrine tumour cells. The patient's symptoms improved with laxatives and analgesics. The colorectal team did not recommend surgery because the tumour might respond to systemic chemotherapy. He was treated with three cycles of etoposide/carboplatin as well as whole brain radiotherapy. Both the pontine and

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FIG. Metastatic caecal tumour seen at colonoscopy

原發性小細胞肺癌併發的盲腸轉移

原發性肺癌很少併有小腸轉移。本文報告一名59歲的男性病人，有原發性小細胞肺癌，並出現貧血和腸徵狀。結腸鏡檢查發現近迴盲瓣位置的盲腸有腫瘤，經活組織檢查發現有小神經內分泌細胞腫瘤。病人接受全身化療後，原發性肺腫瘤縮小，腸徵狀有改善。這種罕見的病例最重要的是及早發現，因為由肺癌併發的小腸轉移，不但死亡率高，短期預後亦很差。隨着化療及緩和治療的進步，有肺癌轉移的病人可能有超過一年的存活期，並且有可接受的生活質素。

lung lesions showed reductions in size on serial imaging, so he was scheduled for further courses of chemotherapy. His abdominal symptoms improved after chemotherapy and he did not develop any acute abdominal complications.

Discussion

There is only a handful of case reports on metastases to the digestive tract from primary lung carcinoma in the literature.[3-5] Many of them are reports of patients who presented with an abdominal crisis secondary to the intestinal metastatic lesion and died shortly after presentation. Therefore, although gastro-intestinal metastasis from primary lung carcinoma is rare, it can result in significant morbidity and mortality if present. A Japanese centre reported lung cancer metastases to the digestive tract (excluding the oesophagus) diagnosed either during surgery or autopsy in 30 (1.8%) out of 1635 lung cancer patients over a 17-year period.[6] Large-cell carcinoma metastases were the most common, followed by adenocarcinoma, small cell carcinoma, and squamous cell carcinoma. Metastasis to the small intestine was more common than metastasis to the stomach and colon. In those patients diagnosed while still alive, the major manifestations were melaena, ileus, intussusception, and perforation, with four patients needing emergency surgery. The mean survival period from the onset of symptoms was 49 days, and in five cases the cause of death was directly related to intestinal metastases. The faecal occult blood test was positive in most of these patients. Garwood et al[7] reviewed the literature and identified 98 cases of small intestinal perforation secondary to metastases from primary lung cancer since 1960. The mean age was 64.5 years and 89% of affected patients were male. Perforations were most common in the jejunum (53%) followed by the ileum (28%). Small bowel perforations were most often caused by adenocarcinomas (23.7%), squamous cell carcinomas (22.7%), large cell carcinomas (20.6%), and small cell carcinomas (19.6%). The mean survival was 66 days with 50% of patients failing to survive beyond 30 days. It is important to look out for gastro-intestinal metastases in lung cancer patients who have unexplained abdominal symptoms. If anaemia is present, a faecal occult blood test should be ordered. Although gastro-intestinal metastases are rare in patients with primary lung cancer, it is important to detect them early in order to prevent complications that may lead to a poor short-term prognosis. The other concern is that perforation is a known complication in patients with gastro-intestinal tumours who are undergoing systemic chemotherapy, hence such metastatic lesions should not be overlooked before starting systemic chemotherapy.

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