

A Case of Multiple Lung Carcinoma in a Man with Multiple Brain Metastasis

Approach to Patient

Abstract

Case report

We report a case of lung cancer with multiple metastases to the brain a 55-year-old man suffered onset severe cough and dyspnea. He had no history of any systemic disease .

Standard blood samples work-up was normal.

Computed tomography(CT) and bronchoscopic biopsy identified an asymptomatic primary pulmonary large cell neuroendocrine carcinoma in the left upper lobe of the lungs and - less differentiated squamous cell carcinoma right upper lobe of the lungs. He also received chemotherapy and radiation therapy to treat the primary lung cancer.

Magnetic resonance imaging of the brain revealed multiple intracranial tumors. It showing; 3 cm metastatic mass in left temporal lobe and 3,5 cm metastatic mass in right frontal lobe.

There were no metastatic findings in any other organs.

The patient firstly; underwent a right frontotemporal approach with total microsurgical resection and after time underwent a left temporal approach with total microsurgical resection .

He made good recovery and discharged.

Key Words: Lung Carcinoma, Brain Metastasis, Multiple, Approach to Patient

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Introduction:

Brain metastases are a common mode of general dissemination of lung cancer. The incidence of brain metastases in the initial staging of patients with primary lung cancer has been reported to be between 12% and 18% of patients(1). Causing significant morbidity and mortality.

A few selected patients with solitary brain metastasis only and good prognosis may be indicated for surgical resection. Radiotherapy is the mainstay of the palliative modality in patients with solid tumor with brain metastases. Whole-brain radiation allows for safe treatment over large areas of the brain at a low daily dose to preferentially damage cancer cells(2,3).

Several studies have demonstrated that chemotherapy induced regression of intracranial secondary lesions(4).

Case Presentation:

We report a case of lung cancer with multiple metastases to the brain a 55-year-old man suffered onset severe cough and dyspnea. He had no history of any systemic disease. Standard blood work-up was normal. In case; lung cancer patients with synchronous multiple metastases to the brain alone who received chemotherapy, with concurrent radiotherapy to the brain and also to the thoracic lesions, resulting in mid-term survival, of more than 1 years. Chest computed tomography showing; the anterior segment of the upper lobe of the left lung, 7x5x5 cm size irregular lobulated contoured mass is limited. Right parahilar region show significant mass formation and elongation showing the right upper lobe apical segment of the solid is linear and nodular densities(Figure1). Bronchoscopic biopsy identified a large cell neuroendocrine carcinoma in the left upper lobe of the lungs and - less differentiated squamous cell carcinoma right upper lobe of the lungs. He also received chemotherapy and radiation therapy to treat the primary lung cancer.

For lung carcinoma; chemotherapy, consisting of cisplatin (40mg/m²) and docetaxel (40mg/m²), was administered on days 1 and 8, with the drugs being given separately, and the chemotherapy was repeated every 4 weeks for up to three cycles.

In magnetic resonance imaging(MRI); 3x3,5 cm demarcated solitary-cystic metastatic mass in right frontal lobe(Figure 2). The patient firstly; underwent a right frontotemporal approach with total microsurgical resection. Subsequently, radiotherapy was performed for the left brain lesion. Whole-brain irradiation (2 Gy/day; total, 36 Gy) and thoracic irradiation (2Gy/day; total, 60Gy) were started on days 1 and 29, respectively. One month after the radiotherapy, the brain lesion was not changed in MRI.

He had developed progressively herniation; general condition deteriorated and consciousness disturbance. MRI of the brain demonstrated a 2,5x 3 cm well demarcated solitary-cystic metastatic mass in left temporal lobe(Figure-2). He underwent emergency surgery. Left temporal approach with total microsurgical resection was performed and metastatic mass was diagnosed. Histological examination of the tumor specimen taken from the central part of the tumor revealed metastasis. There were no metastatic findings in any other organs. He made good recovery and discharged. Our patient has been successfully treated.

The patient recognizes a multidisciplinary approach (Department of Medical Oncology, Neurosurgery, Radiation Oncology, Thoracic Surgery and Thoracic Diseases) outweigh the risks.

Discussion:

The patient described here in presented an atypical clinical course-approach to patient's and imaging findings for multiple metastatic brain tumor of multiple lung cancer. This is the first case in the literature, different pathological cases with a diagnosis of lung cancer and multiple brain metastases.

A literature review suggested that lung carcinoma was the most frequent primary lesion responsible. CT and/or MRI has detected such lesions, which would previously have been subclinical (5) The addition of radiotherapy to surgery did not have an impact on survival but decreased recurrence from 70% to 18%.(8) In our case; after the radiotherapy, the brain lesion was not changed.

The chemotherapy, with concurrent radiotherapy should be given to those patients with brain metastases only in whom a significant survival benefit can be expected. Recurrent or new lesions in other organs have not been observed(6,7). This treatment is expected to prolong survival, not only by improving tumor control in the brain and thorax but also by preventing or delaying the emergence of metastatic disease at sites other than the brain(8).

Methods of treatment are very important. Due to today's circumstances; approach to the treatment of the patient is also important.

Patients can take the wrong decisions. The patient does not expect a long life. For this reason, the patient refuses surgery. Surgeons, taking into account medico-legal problems. Surgical treatment also gets late.

Conclusion

We consider important that preoperative evaluation and intensive talk about with condition of patient; for facilitate early operable of brain metastases in patients .We aren't thinking about medico-legal problems; we have to take the initiative.

So, Many patients with brain metastases were cured or had a well-maintained quality of life for a longer period.

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Figures:

Figure 1: Chest computed tomography imaging on admission showed the primary lesion in the left upper lobe.

Figure 2: T1-weighted and T2-weighted images in the transaxial-coronal plane showing solitary-cystic mass .