A Case Report of Stage IV Lung Cancer with Long Term Survival

Bala Sankar Ramavath[1], John Winkle Medida[2], Srinivas Naik Ramavath[3]

ABSTRACT

Introduction: Lung carcinoma is one of the most common visceral malignancy and it is the most common cause of cancer related death in both men and women; smoking is the most common risk factor.

Case report: Here is a case of 55 years old male chronic smoker, with stage IV non small cell lung cancer cytology had proven malignant pleural effusion. He received palliative chemotherapy, and then on regular follow up we find out brain metastasis. He received palliative radiotherapy to brain. Now the patient is asymptomatic on follow up.

Conclusion: The management intent of stage IV lung cancer is palliation, where the patient receives palliative chemotherapy, palliative radiotherapy and surgery if required. Most of the data is on curative management of oligo-metastatic non-small cell lung cancer includes patient with adrenal metastasis and some reports with brain metastasis. Stage IV non small cell lung cancer long term survival there is only few case reported in early,

Keywords: Lung cancer, Brain metastases, Long term survival, Chemotherapy, Stage IV

INTRODUCTION

Lung carcinoma is one of the most common visceral malignancy, and it is the most common cause of cancer related death in both men and women; smoking is the most common risk factor.[1,2] Most of patients present with lung mass with loco-regional lymphadenopathy, cough, hemoptysis, plural effusion and wightloss. The diagnosis requires high index of suspicion as it can easily confuse with tuberculosis and COPD-(Chronic obstructive pulmonary diseases) most of the patients present with advanced stage. The management of stage IV lung cancer with good performance status is palliative chemotherapy.[3]

CASE REPORT

A 55year old male presented with history of right side dull aching chest pain and dry cough for 3 months, Wight loss of 7kg in 2 months, breathing difficulty since 15 days, there was no symptoms of hemoptysis, bone pain or lump noticed anywhere in body, he was chronic smoker takes 20 cigars per day for last 20 years. On evaluation CT (contrast-enhanced Computed tomography) of thorax which revealed nodular enhancing soft tissue density lesion with irregular margins pleural based in upper lobe of right lung eroding the 2nd and 3rd rib with pre and para tracheal, right hilar subcarinal nodes largest 3.5x2.1x6cm with minimal right pleural effusion. Pleural fluid cytology was positive for metastatic NSCLC (non small cell lung carcinoma) Adenocarcinoma. Metastatic and other routine investigations performed like CT chest and upper abdomen, bone scan, serum alkaline phosphatase, CBP, RFT, LFT, RBS, HIV-I,II HBsAg.

The patient was diagnosed with non small cell lung carcinoma (NSCLC) Adenocarcinoma of right lung T4N2M1a stage IV

He received 3 cycles of palliative chemotherapy with inj-cisplatin and inj- etoposide. He responded subjectively as well as objectively, and then 3 more cycles of palliative chemotherapy was given. He was on regular follow up. After 2 years, he presented with severe breathing difficulty and X-ray chest PA view suggest of massive pleural effusion. He was managed symptomatically with ICD (inter costal drainage) tube. Then we started tab. geftinib 250 mg OD PO. Patient was on regular follow up with CT Thorax showing no mass lesion and only minimal right pleural effusion.

Then after 3 years in 2014 in February he came with headache, vomiting and one episode of convulsion. On examination no neurological deficit find out. CT Scan brain showing non homogeneously enhancing solid cystic lesion with irregular margins and significant surrounding perilesional edema in ipsilateral frontal lobe. Managed symptomatically with anti edema measures and given palliative radiotherapy of 30Gy in 10 fractions to brain metastasis by 3DCRT (3 Dimensional conformal radiotherapy) technique with GTV, CTV, PTV margins.

DISCUSSION

Non Small Cell Lung Cancer is the leading cause of cancer related deaths worldwide. Brain, Bone, Liver and adrenal gland are the most common extra pulmonary sites of distant metastases.[1] 20-50% of NSCLC will present with metastatic disease. Stage IV NSCLC has an overall median survival time of 7-11 months.[2] The standard management of stage IV Lung cancer is palliative chemotherapy with platinum based combination. Patient presenting with Anorexia, weight loss and fatigue have an especially poor prognosis which depicts advanced stage and aggressive tumor biology.[3] Squamous cell carcinoma is associated with a higher probability of treatment response than adeno carcinoma.[4] Brain metastases have dismal prognosis without treatment, with median survival of 1-2 months.[5] Historically whole brain radiotherapy (WBRT) was the standard of care in the management of brain metastases. 75% of patients had symptomatic neurological improvement with whole brain radiotherapy alone.

[1]Assistant Professor, [2]Senior Resident, Department of Radiation Oncology, [3]Civil Assistant Surgeon, MNJ Institute of Oncology and Regional cancer centre, Hyderabad.

Corresponding author: Dr. Bala Sankar. R, Assistant Professor, Department of Radiotherapy, MNJ Institute of Oncology and Regional Cancer Centre, Redhills, Hyderabad – 500004, India

How to cite this article: Bala Sankar Ramavath, John Winkle Medida, Srinivas Naik Ramavath. A case report of stage IV lung cancer with long term survival. International Journal of Contemporary Medical Research 2016;3(3):656-657.

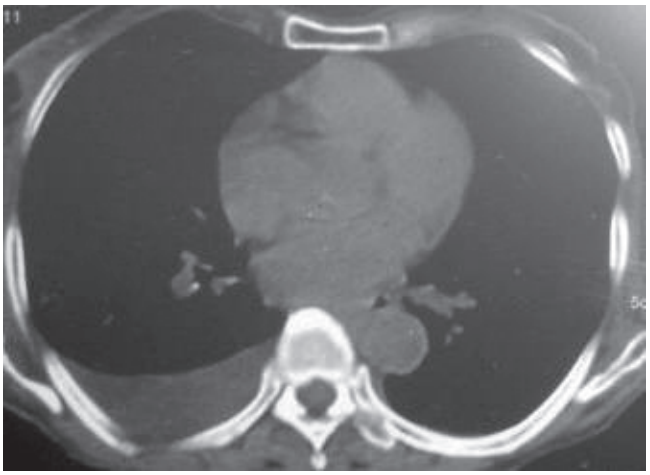

Figure-1: CT Scan thorax with minimal right pleural effusion with no mass

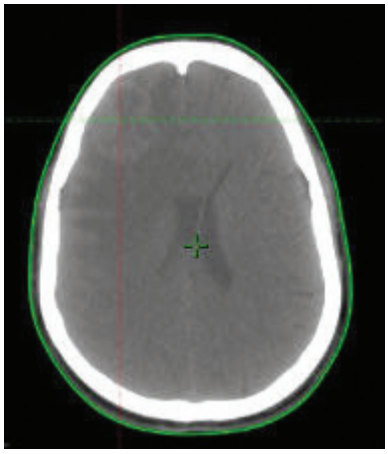

Figure-2: CT Scan brain showing metastasis mets

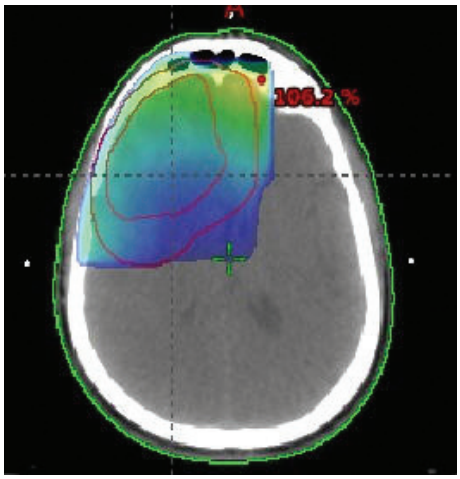

Figure-3: Radiotherapy planning of brain

However, this benefit is short lived with a median survival of only 3 – 6 months. Chronic neurological morbidities were seen in significant patients on follow up.[6] Stereotactic radio surgery or stereotactic radiotherapy is an best way of to treat for solitary brain metastasis in which high dose of focused radiation in a single fraction to a specific target is delivered. Recent data suggest that the combined treatment regime surgery and radiotherapy is beneficial for patients with a single brain metastasis[7,8] Most of the data shows, in stage IV NSCLC, the curative management can be done in oligometastatic patients with adrenal metastasis and brain metastasis. Few selected reports showed, lung cancer patients with only malignant pleural effusion and no other metastatic site had long term survival with chemotherapy.[9,10] Only few cases were reported in the past with long-term survival of more than 5 years in non small cell lung cancer.

CONCLUSION

The diagnosis of stage IV non small cell lung cancer does not necessarily imply that patient has short term survival and incurable. To properly select the patients for an aggressive treatment regimen, accurate clinical staging, histological type and time of metastasis is of prime importance. Only few cases were reported in the past with long-term survival of more than 5 years in non small cell lung cancer and our case was survived more than 5 years.

REFERENCES

1. Quint LE, Tummala S, Brisson LJ, Francis IR, Krupnick AS, Kazerooni EA, et al. Distribution of distant metastases from newly diagnosed non-small cell lung cancer. Ann Thorac Surg. 1996;62:246-50.
2. Ramalingam S, Belani C. Systemic chemotherapy for advanced non-small cell lung cancer: Recent advances and future directions. Oncologist. 2008;13:5-13.
3. Mussi A, Pistolesi M, Lucchi M, Janni A, Chella A, Parenti G, et al. Resection of single brain metastasis in non-small-cell lung cancer: Prognostic factors. J Thorac Cardiovasc Surg. 1996;112:146-53.
4. Junker K, Thomas M, Schulmann K, Klinke F, Bosse U, Müller KM. Tumour regression in non-small-cell lung cancer following neoadjuvant therapy. Histological assessment. J Cancer Res Clin Oncol. 1997;123:469-77.
5. Richards P, Mckissock W. Intracranial metastases. Br Med J. 1963;1:15-8.
6. Deutsch M, Parsons JA, Mercado R Jr. Radiotherapy for intracranial metastases. Cancer. 1974;34:1607-11.
7. Kondziolka D, Patel A, Lunsford LD, Kassam A, Flickinger JC. Stereotactic radiosurgery plus whole brain radiotherapy versus radiotherapy alone for patients with multiple brain metastases. Int J Radiat Oncol Biol Phys. 1999;45:427-34.
8. Andrews DW, Scott CB, Sperduto PW, Flanders AE, Gaspar LE, Schell MC, et al. Whole brain radiation therapy with or without stereotactic radiosurgery boost for patients with one to three brain metastases: Phase III results of the RTOG 9508 randomised trial. Lancet. 2004;363:1665-72.
9. Mordant P, Arame A, Foucault C, Dujon A, Le Pimpec Barthes F, Riquet M. Surgery for metastatic pleural extension of non-small-cell lung cancer. Eur J Cardiothorac Surg; 2011;40:1444-9.
10. Okamoto T, Iwata T, Mizobuchi T, Hoshino H, Moriya Y, Yoshida S, et al. Pulmonary resection for lung cancer with malignant pleural disease first detected at thoracotomy. Eur J Cardiothorac Surg. 2012;41:25-30.

Source of Support: Nil; **Conflict of Interest:** None

Submitted: 12-01-2016; **Published online**: 01-02-2016