



CASE REPORT

Primary Pulmonary Adenoid Cystic Carcinoma with Lumbar Vertebral Metastasis: Response to Gefitinib

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Abstract

Primary adenoid cystic carcinoma of lungs with vertebral metastases at presentation is a rare entity with very few treatment options. We report a case of 78-year old non-smoker female who was investigated for low backache and found to have adenoid cystic carcinoma of right lung with lumbar vertebral metastasis. She refused palliative radiation therapy to lumbar spine because of her inability to move and severe pain. She received oral gefitinib and reported remarkable relief in symptoms.

Key Words

Pulmonary Adenoid Cystic Carcinoma, Vertebral Metastasis, Gefitinib

Introduction

Primary adenoid cystic carcinoma (ACC) of lungs accounts for 0.09 - 0.2% of all primary lung cancers and originates from tracheobronchial glands in the submucosa of trachea and main bronchi (1). Surgery and radiation therapy are the mainstay of treatment in localized disease (2). Metastatic disease is known for its refractoriness to chemotherapy and targeted therapy needs exploration. We are reporting an old lady who chose gefitinib therapy because of convenience and showed remarkable response- both subjective and objective.

Case Report

A 78-year old normotensive, non-diabetic, non-smoker, thin built female presented to an orthopedic surgeon in May, 2011 with severe pain in lower back. MRI of spine (T2 -weighted, sagittal image) showed markedly hypointense signal intensity in the body of third lumbar vertebra suggestive of metastasis (*Fig. 1*). Chest X ray revealed right lower lobe paracardiac opacity with some atelectasis of lower lobe (*Fig. 2*). CT scan of the chest showed an endobronchial mass obliterating right lower lobe bronchus/ bronchus intermedius with partial

atelectasis of lower lobe (*Fig. 3&4*). Fiber-optic bronchoscope showed a fleshy polypoidal growth protruding into the lumen of right lower lobe bronchus. Biopsy of the growth was suggestive of adenoid cystic carcinoma - cribriform pattern (*Fig. 5*).

Patient refused a course of palliative radiation therapy to lumbar spine and instead accepted oral treatment with gefitinib 250 mg daily. After about 2 weeks of therapy she was relieved of her back ache. She has reported adverse events in the form of one episode of grade 2 diarrhea relieved with loperamide. She developed pruritus and acneiform rash on the back and legs which was relieved with a corticosteroid cream. She is on regular follow up and her chest X ray done in October 2011 shows resolution of right paracardiac opacity. She is still on gefitinib and regular follow-up more than six months after diagnosis.

Discussion

Primary pulmonary ACC present commonly as localized disease in trachea and main bronchi. Spread to regional lymph nodes is seen in 10-20% cases at

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Fig. 1 T- 2 Weighted Saggittal MRI Image of Lumbar Spine Shows Markedly Hypointense Signal Intensity of Vertebral Body of L3 Vertebra Suggestive of Metastasis



Fig. 2. Chest x Ray Shows a Right Paracardiac Mass Lesion with some Atelectasis of Lower Lobe of Right Lung

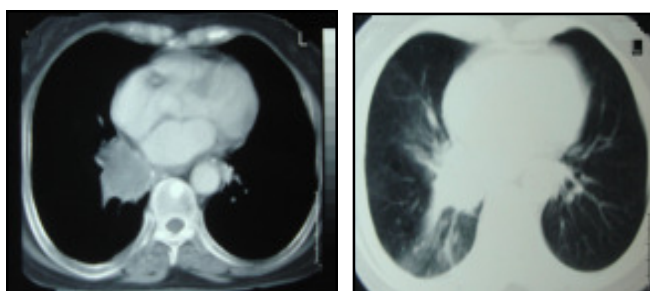


Fig. 3 & 4. CT of Chest (soft tissue/mediastinal window) Reveals a Large Endobronchial Mass on Right Side in the Region of Lower Lobe Bronchus/ Bronchus Intermedius and CT of Chest (lung window) Reveals a Central Mass with Partial Atelectasis of Lower Lobe of Right Lung

presentation. Distant metastases are seen late in the natural history of disease (3). Gefitinib is recommended as first line treatment for EGFR mutation positive adenocarcinoma of lungs in nonsmokers and has been tried in the ACC and mucoepidermoid carcinoma of salivary glands wherein similar mutations have been reported recently (4). Gefitinib has been used in advanced mucoepidermoid carcinoma of lung with encouraging results (5). Keeping all these facts in mind and the precarious situation of the patient, we tried gefitinib in the upfront therapy and the response has been encouraging with tolerable adverse events.

Conclusion

This case report impels us to treat primary ACC of lung with metastases in nonsmoker Asian females with gefitinib just like adenocarcinoma and broncho-alveolar carcinoma of lungs.

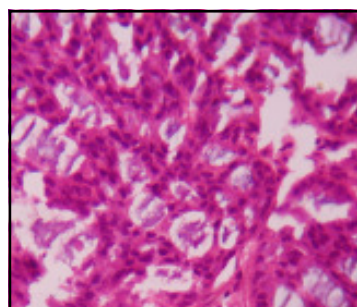


Fig. 5. Photo Micrograph (H&E 40X) shows Cystic Spaces Filled with Eosinophilic Material Surrounded by Nests and Columns of Bland Appearing Cells.

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