



RESEARCH ARTICLE

PLEOMORPHIC CARCINOMA OF THE LUNG AN INTERESTING CASE REPORT

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ABSTRACT

It is about a 45-year-old male who underwent urgently right thoracotomy for destroyed right upper lobe lung in sepsis. Patient underwent right upper lobectomy uneventfully. The pathology report showed pleomorphic carcinoma of the lung. Within a twenty-day period post surgery patient developed local recurrence of the carcinoma involving superiorly the lower right lobe. Redo right thoracotomy was decided and wedge resection of the tumor was uneventfully excised. Patient underwent immediately chemotherapy and twenty-four months post therapy is asymptomatic and disease-free. Protocols and guidelines really help to organize a strategic plan for effective therapy for patients with cancer. Perhaps we should keep in our mind that there are not only diseases but also patients who respond differently to therapies. It is an interesting case report.

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INTRODUCTION

Numerous scientists have done research for patients with cancer especially for surgical treatment and adjuvant therapy before and post surgery, trying to find the best therapy to improve patients' life.

Description of the case in chronological order: Post patient admission antibiotics started and the next day a CT needle biopsy performed and a chest drain was inserted. Patient still unwell, worsening became septic and finally patient sent to theatre for operation.

PMH of the patient included: No Allergies DNKA

Operation – technique: Right thoracotomy for destroyed right upper lobe in sepsis.

Findings: The upper part of the upper lobe was stuck in the thoracic wall with no rib involvement and was excised uncomplicated. Right upper lobectomy was done uneventfully. The upper part of the inferior lobe was excised.

Patient had a good postoperative recovery and discharged home the fifth postoperative day. The pathology report showed pleomorphic carcinoma of the lung. Three weeks post procedure patient developed local recurrence of the carcinoma involving the lower right lobe upper superiorly. Patient was septic again and returned back to theatre. Redo right thoracotomy, no additional lower lobectomy or pneumonectomy was decided during the procedure. Finally the tumor was excised from the lower lobe. Patient was discharged the fourth postoperative day. Within a week he started chemotherapy for pleomorphic carcinoma of the lung. Treatment included Carboplatin, Paclitaxel, Ipilimumab and Nivolumab according to study Checkmate 9-la. Immunotherapy was added also. Patient is asymptomatic and disease-free more than two years since initial operation – diagnosis.

DISCUSSION

Pulmonary pleomorphic carcinoma is a rare type of lung cancer that comprises 0.1%–0.4% of malignant tumors of the lung.^{1,2} The incidence of PC has been reported to range from 0.1% to 0.4% of all lung cancers and only a few case reports have been published.^{1,2}

Is defined as a poorly differentiated NSCLC, such as squamous cell carcinoma, adenocarcinoma. PC of the lung is defined as a poorly differentiated NSCLC, such as squamous cell carcinoma, adenocarcinoma. Also mimicking synchronous pulmonary adenocarcinoma and small bowel sarcoma.^{1,3,4} In PC, the most common carcinomatous element consists of conventional adenocarcinoma and squamous cell carcinoma and less commonly undifferentiated large cell carcinoma.^{1,4} Defined as a tumor that combines spindle or giant cell carcinoma with any of the more usual patterns of NSCLC.^{1,5,6} Considered a variant of other well-known lung cancers because of its biphasic appearance and its frequent association with other histological types. PC is 1 of the 5 subtypes of sarcomatoid carcinoma.^{1,2,3,4,5,6} It is easily mixed with the other 4 subtypes of sarcomatoid cancer: spindle cell carcinoma, giant cell carcinoma, carcinosarcoma, and pulmonary blastoma. Because of the limitation of biopsy tissues, pleomorphic carcinoma sometimes cannot be diagnosed precisely before the operation.¹



Image 1. CT Scan - pleomorphic carcinoma of the lung



Image 2. CXR Post Drain Insertion



Image 3. Right Upper Lobe

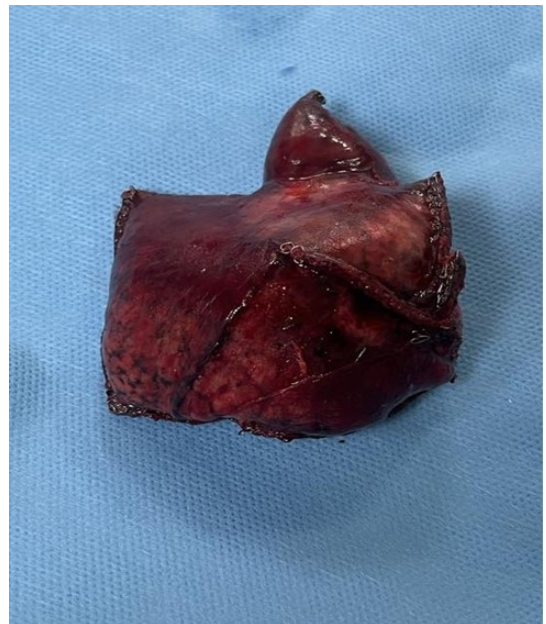


Image 4. Upper part of the inferior right lobe

Common clinical symptoms include irritate cough, hemoptysis, chest pain, and fever. Mean age at diagnosis was 60 to 65 years, and more male patients were found with the gender ratio was about 2.1:1. 60% to 90% of the patients were exsmokers, which suggested a strong correlation with smoking.^{1,3,4, 5,6,7} Overall, the prognosis for PC is poor. Fishback et al and Rossi et al reported the median survival time is 8 to 19 months.^{1,5,6} Chang et al² reported that 7 patients who received surgical resections were found distal metastases within a few months. They occurred in bone and organs, including brain, adrenal gland, esophagus, jejunum, rectum, and kidney.² The advanced pulmonary pleomorphic carcinoma was found to respond poorly to the platinum- and nonplatinum-based chemotherapy regimens.

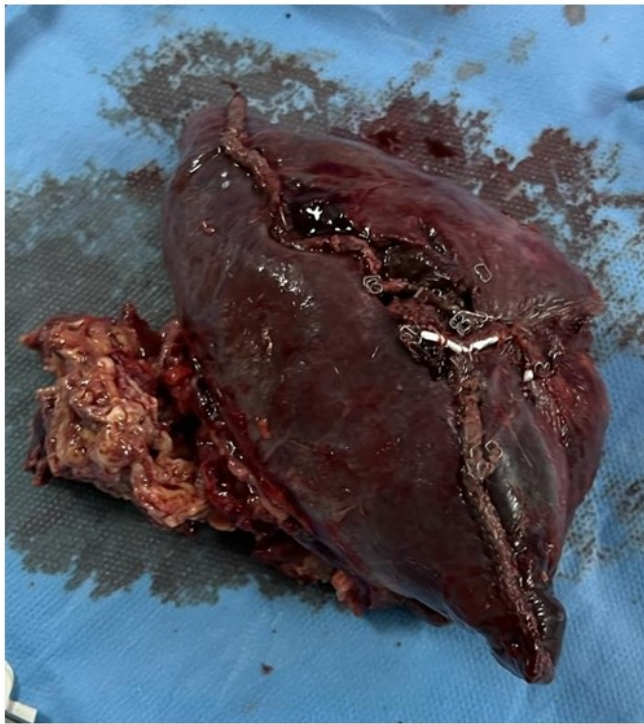


Image 5. Upper part of the inferior right lobe (redo)

All of these are active in NSCLC and conventional radiation therapy has had little effect on PC.^{1,10} X Zhang et al presented an interesting case report about an asymptomatic 69 year old female diagnosed by percutaneous lung biopsy with sarcomatoid cancer a mass on the left lingular lobe.¹ Patient underwent left pneumonectomy. The pathological stage was T_{2a}N₀M₀ (Ib). Due to the patient's refusal, adjuvant chemotherapy was not taken and she has been living disease free for 12 months after the surgery. Chang et al² also reported the median survival time was only 3 months for 9 inoperable cases that were treated by chemo radiotherapy. The study patient male 46 year old our patient was symptomatic (fever, cough and WBC= 33.000) decided urgently operation because of sepsis. Patient underwent right upper lobectomy uneventfully. The pathology report showed pleomorphic carcinoma of the lung. Within three weeks patient became septic again and underwent reoperation. Was decided to excised the local recurrence upper part of the right lower lobe and not pneumonectomy. In a week started chemotherapy (included Carboplatin, Paclitaxel, Ipilimumab and Nivolumab according to study Checkmate 9-la), followed by immunotherapy. Patient is well and asymptomatic more than two years post operations. The overall survival rate and disease-free survival rate were 36.6% and 40.7%, respectively, and both rates were significantly lower than for other no small cell lung carcinomas.¹

CONCLUSION

Pulmonary pleomorphic carcinoma is a rare type of lung cancer that comprises 0.1%–0.4% of malignant tumors of the lung.

Common clinical symptoms include irritate cough, hemoptysis, chest pain, and fever. Mean age at diagnosis was 60 to 65 years, and more male patients were found with the gender ratio was about 2.1:1. 60% to 90% of the patients were exsmokers, which suggested a strong correlation with smoking. Prognosis for PC is poor with median survival time is 8 to 19 months. Protocols and guidelines really help to organize a strategic plan for effective therapy for patients with cancer. Perhaps we should keep in our mind that there not only diseases but also patients who respond differently to therapies.

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