# 폐에 발생한 다형태 암종 환자에서 전이부위 절제술 후 장기 생존

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## Long-term Survival following Surgical Resection for Recurrence of Pulmonary Pleomorphic Carcinoma

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Pulmonary pleomorphic carcinomas are rare malignant tumors that account for 0.1 to 0.4% of all lung cancers. They are notable for their aggressive clinical behavior and poor prognosis. We report here on a patient who is alive and disease-free 12 years after receiving surgical treatment for the rib recurrence of pulmonary pleomorphic carcinoma.

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**Key words:** 1. Lung neoplasms
2. Survival
3. Recurrence

## CASE REPORT

A 48-year-old male patient present in 1990 with a 2-month history of cough and blood-tinged sputum. He denied any history of pulmonary disease. Physical examination and routine laboratory studies were unremarkable. A chest X-ray and computed tomogram revealed a 5 cm-sized mass obstructing the left lower lobe bronchus. Needle aspiration biopsy showed that the mass was suspicious of non-small-cell lung cancer or sarcoma. A whole-body bone scan and abdominal ultrasonogram were unremarkable.

Left pneumonectomy was performed through postero-lateral thoracotomy after the 6$^{th}$ left rib was resected. The pathological diagnosis indicated pulmonary pleomorphic carcinoma and the resection margin and all lymph nodes were negative for malignancy; the pathologic stage was Ib. Adjuvant chemotherapy and radiotherapy was planned, but after five weeks of radiation the patient refused further treatment. Four years after the first operation, metastasis of the 7$^{th}$ and 8$^{th}$ left ribs was found through a chest computed tomogram and whole-body bone scan. Metastasectomy was planned, and an en bloc resection was performed including the 7$^{th}$ and 8$^{th}$ ribs and a 7×8 cm-sized pleural cavitary mass connected to those ribs. Pleomorphic carcinoma cells were detected on the resected ribs and aspirated fluid from the cavitary mass (Fig. 1). After 1 cycle of adjuvant chemotherapy, the patient refused further treatment. Twelve years after the last resection, the patient is doing well with a satisfying quality of life and no restriction to his daily activities. A recent chest X-ray showed no sign of recurrence (Fig. 2).

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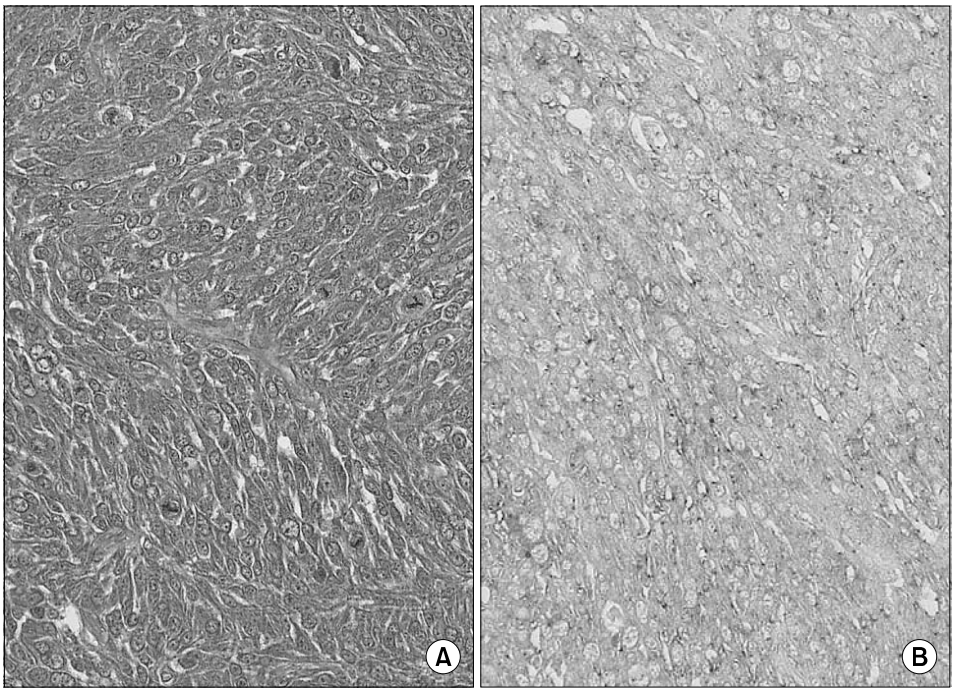


**Fig. 1.** Pleomorphic carcinoma: (A) The spindle cell component shows cytologic pleomorphism but epithelioid morphology (H&E staining, ×200). (B) The spindle cells stain strongly for epithelial membrane antigen (×200).

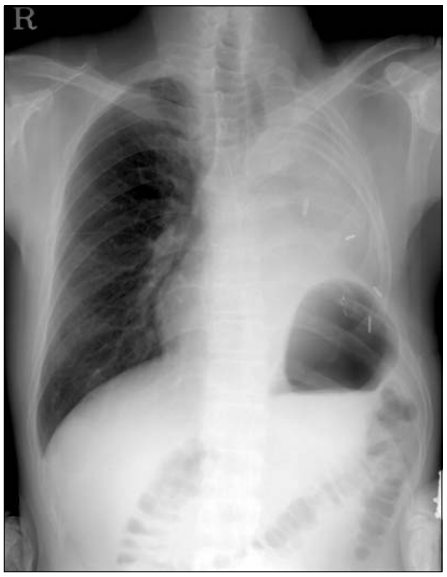


**Fig. 2.** Recent chest X-ray shows no sign of recurrence.

## DISCUSSION

Pleomorphic carcinoma is a rare, epithelial malignant tumor. It has been reported in several human organs, including the lung parenchyma[1]. The 2004 World Health Organization (WHO) classification identified pulmonary pleomorphic carcinoma as a subgroup of lung cancer among sarcomatoid carcinoma[2], this category of tumors was previous called “carcinoma with pleomorphic, sarcomatoid or sarcomatous elements” in the 1999 WHO classification[3]. Prior to 1999, pleomorphic carcinoma was considered to be a variant of other well-known lung carcinomas because of its biphasic appearance and its frequent association with the other histologic types[4]. Diagnosis of this neoplasm has been problematic and confusing because of the lack of uniform diagnostic criteria. This neoplasm was first diagnosed as carcinosarcoma in 1990, but now, according to the 2004 WHO classification, the diagnosis should be pleomorphic carcinoma.

Patients with these tumors tend to demonstrate a despondent clinical course and their prognosis is generally poor because surgical, irradiation and chemotherapy treatments are usually ineffective. The reported overall survival is 5 to 19 months[1,5,6]. The cause of death is local recurrence and distant metastasis and the prognosis of this tumor seems to depend on the sarcoma component of the tumor. The most frequent metastatic sites are the lymph nodes, but metastases also occur in many other sites, most commonly the kidney, bone, liver, lung, spleen, and gastrointestinal tract[7]. According to the American Society of Clinical Oncology (ASCO)

guidelines for unresectable non-small cell lung cancer[8], resection for distant metastases is recommended only for solitary metastasis of the brain and adrenal gland, while the surgical efficacy of other metastasized sites is doubtful.

To our knowledge, there is no previous report of a long-term survivor after resection of recurrence with pleomorphic carcinoma. In the current case, the patient has been alive and disease-free for 12 years after resection for rib recurrence of pulmonary pleomorphic carcinoma.

In conclusion, the current case stresses that aggressive resection of recurred pulmonary pleomorphic carcinomas can result in long-term survival with good quality of life in appropriately selected patients.

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=국문 초록=

폐에서 다형태 암종은 전체 폐암의 0.1～0.4%를 차지하는 매우 드문 악성 종양으로 나쁜 임상경과와 좋지 않은 예후로 알려져 있다. 저자들은 폐에 발생한 다형태 암종 치료 후 발생한 늑골전이에서 외과적 치료를 통해 12년의 무병 장기 생존을 얻었기에 보고하는 바이다.

중심 단어 : 1. 폐종양
2. 생존
3. 재발