



doi • 10.5578/tt.57346

Tuberk Toraks 2017;65(3):260-261

Geliş Tarihi/Received: 12.06.2017 • Kabul Ediliş Tarihi/Accepted: 22.06.2017

EDİTÖRE MEKTUP
LETTER TO THE EDITOR

A long-term survival with cardiac tamponade due to small cell lung cancer

Yuki KAJI¹
Hajime OSAWA¹
Shinichiro OKAUCHI¹
Hiroaki SATOH¹

¹ Division of Respiratory Medicine, Mito Medical Center, Tsukuba University, Mito, Japan

¹ Tsukuba Üniversitesi Mito Tıp Merkezi, Solunum Bölümü, Mito, Japonya

To the Editor,

Cardiac tamponade caused by carcinomatous pericarditis is a complication of advanced malignancy. Management of cardiac tamponade is sometimes difficult, and sudden death if it is not controlled properly (1). Lung cancer is one of the most important causes of this oncology emergency (2). We show herein a small cell lung cancer (SCLC) patient with cardiac tamponade, who had a long-term survival.

A 71-year-old male was referred to our hospital following a three-month history of hoarseness. Upon admission, the serum levels of neuron-specific enolase were elevated to 156.7 ng/mL. Chest radiograph and CT scan revealed an ill-defined mass in the upper lobe of the right lung, with ipsilateral mediastinal lymph node swelling and pericardial fluid. The pathological examination of the tumor, which was obtained by fiberoptic bronchoscopy, was consistent with a diagnosis of SCLC. Systemic evaluation revealed no distant metastasis. The patient received 3 courses of carboplatin (AUC= 5, day 1, q28) plus etoposide (100 mg/m², day 1-3, q28). Soon after 3 courses of the chemotherapy, however, the patient complained dyspnea and tachycardia. Physical examination revealed distended jugular

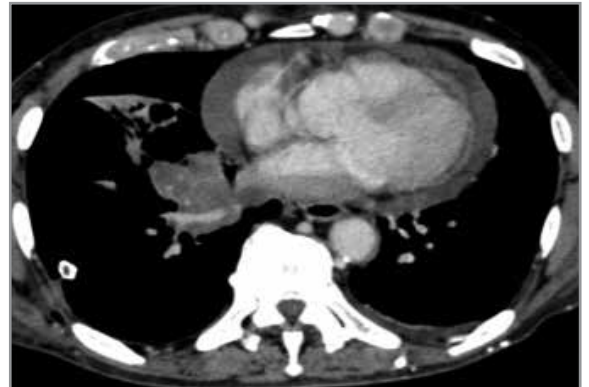


Figure 1. Chest CT scan showed massive pericardial effusion with mass in the right lung and left pleural fluid.

veins, paradoxical pulse, and hypotension. Chest CT scan showed acutely increase of pericardial fluid despite of shrinkage of the primary lesion and mediastinal lymph nodes (Figure 1). Electrocardiogram

Yazışma Adresi (Address for Correspondence)

Dr. Hiroaki SATOH
Division of Respiratory Medicine, Mito Medical Center,
Tsukuba University, MITO - JAPAN
e-mail: hirosato@md.tsukuba.ac.jp

showed low voltage and ventricular diastolic dysfunction in echo cardiogram. With the diagnosis of cardiac tamponade caused by carcinomatous pericarditis, pericardiocentesis was immediately performed to control cardiac tamponade. Cytological specimens were obtained from the fluid and they were proven to be SCLC cells. As the patient had good performance status (ECOG PS 1), the patient received weekly amrubicin (one of the anthracycline analogues, 35 mg/m², day 1, 8, 15) and responded well for 12 months (3). Neither severe hematological nor non-hematological adverse events were observed. No additional therapy for local control of carcinomatous pericarditis was required. As follow-up chest CT scan revealed recurrence at the site of the primary lesion, the patient received CPT-11 (100 mg/m², day 1, q28) for 10 months and carboplatin (AUC= 5, day 1, q28) plus etoposide (100 mg/m², day 1-3, q28) for 3 months. The patient died of SCLC 30 months after the diagnosis of the disease.

Pericardiocentesis is the emergency procedure for patients with cardiac tamponade and it must be indicated for either good or poor conditioned patients with this condition (4). Complications related to this procedure are considered to be high in poor conditioned and elderly patients. Good PS in limited

disease SCLC, maintenance of PS even acutely development of cardiac tamponade were the favorable factors in our patient. Successful control of cardiac tamponade by pericardiocentesis must be another favorable factor. In addition to them, good response to the second- and later-lines of chemotherapy was also favorable factor in our patient. These several favorable factors must have relationship with a long-term survival. Even development of cardiac tamponade in SCLC patients, a long-term survival would be achieved if there might be several favorable factors as observed in our patient.

REFERENCES

1. Refaat MM, Katz WE. Neoplastic pericardial effusion. *Clin Cardiol* 2011;34:593-8.
2. Okamoto H, Shinkai T, Yamakido M, Saijo N. Cardiac tamponade caused by primary lung cancer and the management of pericardial effusion. *Cancer* 1993;71:93-8.
3. von Pawel J, Jotte R, Spigel DR, O'Brien ME, Socinski MA, Mezger J, et al. Randomized phase III trial of amrubicin versus topotecan as second-line treatment for patients with small-cell lung cancer. *J Clin Oncol* 2014;32:4012-9.
4. Burazor I, Imazio M, Markel C, Adler Y. Malignant pericardial effusion. *Cardiology* 2013;124:224-32.