LATE ONSET OF SVC SYNDROME AFTER 18-YEARS OF RIGHT PNEUMONECTOMY FOR LUNG CANCER

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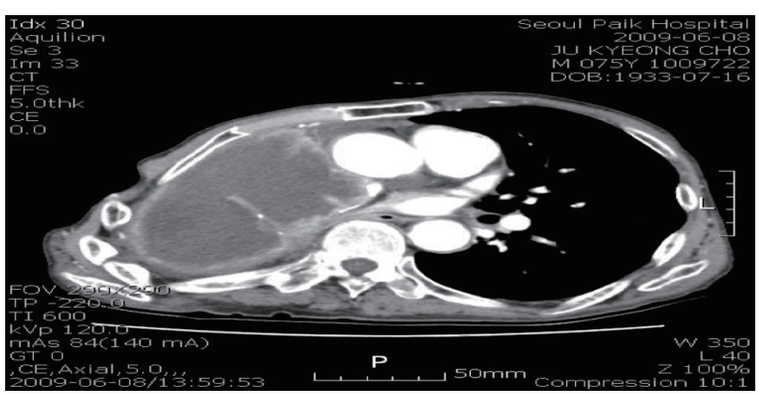
Purpose: Causes of superior vena cava (SVC) obstruction are various. We experienced extremely rare case of late SVC syndrome after 18-years of right pneumonectomy for lung cancer and treated successfully by stent insertion.

Methods and Results: A 75-years old male patient was admitted for general weakness, poor oral intake and generalized edema. He received right pneumonectomy and mediastinal LN dissection for squamous cell carcinoma (pT1N0M0) 18-years before. He didn't receive any postoperative adjuvant therapy. He took routine follow-up for cancer recurrence during 6-years after operation. And recently he was admitted for esophagitis caused by cytomegalovirus and treated with ganciclovir for 14 days but central venous access was not performed during hospital stay. And he complained dyspnea, cough, sputum and rhinorrhea after 3 days of discharge On physical examination, patient was chronic ill-looking appearance, vital sign were 120/80-71/min-28/min-37.2°C. And localized edema on upper extremities and face were found. On auscultation, wheezing and crackle were heard on left lung field. Lab data on admission was Hemoglobin 9.8g/dL, WBC 16570/mm3, neutrophil 86%. Electrolyte was normal and proBNP was 970.4 pg/ml. LDH was 434U/ml, BUN/Creatinine were 18mg/dl/0.7mg/dl. EKG showed atrial fibrillation and intermittently sinus rhythm with ST-T change. Chest X-ray showed stabilized right pneumonectomy space and mild left pleural effusion. We thought, he suffered from congestive heart failure or cardiac asthma. But chest CT on previous admission was showed severly narrowed SVC by parietal pleura of pneumonectomy space. (Figure) Etiology was presumed local recurrence of previous lung cancer on pleura of pneumonectomy space. Transthoracic echocardiography revealed moderate amount of pericardial effusion, so, pericardiocentesis was done. There was no evidence of malignancy in pericardial fluid anlaysis. On 4th hospital day, patient became hypotensive and drowsy and urine output was decreased. Patient was transferred to ICU. We decided to insert stent into narrowed SVC, and successfully inserted with Wall stent via right femoral vein by intervention radiologist. After stent insertion, swelling of both upper extremities and face were markedly resolved



and mentality was recovered. Patient was returned to general ward on 19th hospital day, but general condition and oral intake were poor and he refused further treatment. He was discharged with medication for atrial fibrillation, anticoagulation of stent, diuretics and BPH.

Conclusions: Cause of SVC syndrome was mainly malignant (60%) and benign causes was 40%. Most common causes of malignancy were lung cancer direct invasion and mediastinal lymphadenopathy. And most common causes of benign nature were thrombosis after indwelling central venous catheter and fibrosing mediastinitis. Treatment of choice is stent insertion and radiation therapy, chemotherapy for malignant cause can be considered. And medical treatment including head elevation, diuretics and steroids should be included. But in this patient, there was no history of indwelling central venous catheter, nor evidence of fibrosing mediastinitis. Clinically, we presumed the etiology of SVC syndrome as local reccurence of lung cancer by his complaints of general weakness and poor oral intake. On review of literature, there was no report of late development of SVC syndrome after pneumonecotmy for lung cancer. We report our experience of extremely rare case of late onset of SVC syndrome after pneumonectomy for lung cancer and successful treatment by stent insertion.