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5<sup>th</sup> Meeting of the Thoracic Oncology, Thoracic  
Surgery, Techniques & Transplant, Respiratory Nursing  
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Society of Pneumology and Thoracic Surgery (SEPAR)



3<sup>rd</sup> Joint Meeting of the Spanish Society of  
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10<sup>th</sup> International Workshop on Surgical Exploration of the  
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## SPONTANEOUS FISTULA MAIN BRONCHUS AFTER NONANATOMICAL 2-ND WEDGE RESECTION FOR LUNG CANCER: HOW TO MANAGE THIS MAJOR LIFE-THREATENING COMPLICATION

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Bronchopleural fistula after wedge apical resection for lung cancer is a very rare but life-threatening complication. Recognizing and managing this complication in time is often very complex for the clinicians and surgeons. On the basis of our of experience, we tried to outline a diagnostic and therapeutic algorithm to help clinicians in the management of this feared complication.

Objective: Our goal is to evaluate the correct management of broncho-pleural fistula (BPF) after wedge apical resection for lung cancer. Methods: We retrospectively reviewed our 25-years' experience and reported our strategies and our diagnostic algorithm for the management of post-wedge apical lung resection main broncho-pleural fistula. We had a second segmaent lung cancer parient ,adenocarcinoma tumor stage IIB, T3N0M0 and COPD. With general anesthesia selective intubation CARLENS . A dexter posterolateral thoracotomy is performed. The dexter pleural cavity is opened. An extrapleural peripheral pulmonary mass is prepared, seg. II posterior 3 x 3 cm. An adrenciolysis of the dexter lung is performed and the preparation of the dexter pulmonary ligament and mediastinal pleura is performed. Systemic cyst of the mediastinal lymphnodes, station 9 + 0.6 cm, station 8 = 0.5 cm, 10 hilar = 1 cm, station 4, 2, 3, dexter about 0.5-1 cm strong and with inflammatory tendencies. Strong pulmonary mass with contours clear invasion of the visceral pleura. Emphysematous upper lobe lung. In these conditions, a non-anatomical segmentectomy of the posterior superior lobe is performed with the help of clamps and a superior lobe bulectomy with the help of apical and anterior seg clamps and the posterior subsegment. Hemostasis of the base of the bulectomies with sutures vicryl 3.0 continua in two layers. Check for hemosyase and aerostasis in order. Operative material in order. Intercostal blockade with Iodocaine 2%-20 cc diluted in a ratio of 4/1 at the thoracotomy level two spaces below and two above it. Pleural towels with 10,000 ml physiological sol. BAA and BAP pleural drainage for hemostasis and aiostasis. The drains are fixed in the walls, the drains are connected to the underwater system. The wound is sutured in layers. The operative

wound is treated sterile. The operation went well. Blood loss about 100cc. No need for hemotransfusion. He wakes up in the room, he is sent to intensive care for further follow-up and treatment. His family situation is clarified. Biopsy material.

Results: On 05/21/2015, the patient has subcutaneous emphysema expressed with truncal and facial Hamman's syndrome and Meckling's syndrome, treated with right pleural drainage spacium 2/3 i/c linea axillais anterior et chemical pleurodesis from the drain with autologous blood about 120 c, active aspiration from the drain and skin incisions. The patient under medical treatment and oxygen therapy has been stable in the hemodynamic and astrupogram parameters, and oximetry. Objectively conscious already with a significant amount of air flow from the pleural drain. Subcutaneous auxiliary incisions are made at the level of subcutaneous emphysema, and the entire area is completely resorbed. emphysema. On Rtg (p-a) the lung is open but with the presence of apical air (apical PNX). On 01/06/2015 the condition is listed with pronounced dyspnea at rest and with increased emphysema in the subcutaneous truncal and facial and cervical areas. Rtg (p-a) drains favorable position BA but presence of apical air because the anterior drain has made an intrapleural twist, the lung is not fully opened. In these conditions, the patient is sent to resuscitation for adequate treatment. FBS are performed, resulting in a suspected dexter bronchial fistula, probably a tracheoesophageal fistula. On 03/2015, a test with blumetics is done to see the communication with the esophagus of the fistula, but there is no communication. FBS are done again, where it is thought that we only have a dexter bronchopleural fistula. On 03/06/2015, the dexter apical pleural drain No. 36 F is restored. The drain is fixed in the thoracic wall. It is connected to the underwater system, a significant amount of air comes out. The drain is removed, which has made an intrapleural contour. Rtg(p-a)dates 03/06/2015 results in a complete collapse of the lung and the drains in a non-volatile position A large amount of air flows from the drain. Increased subcutaneous truncal, cervical and facial emphysema. The new patient is discussed with the medical and surgical staff and surgical reintervention is proposed, dexter posterolateral thoracotomy, aerostasis and careful hemostasis, fistulobronchoraphy and pleural toilet and BAA drainage. BAP under general anesthesia probable et tracheostomy post operative under general anesthesia CARLENS for which the patient and his family agree. Conclusions: The correct management of BPF depends on various factors: timing of onset, size of the fistula, anatomic localization, and the general condition of the patient. In the case of failure of various initial therapeutic approaches, completion intervention or OWT could be considered. Keywords: broncho-pleural fistula, lung cancer, lobectomy, management of broncho-pleural fistula Right main bronchus fistulae spontaneously.

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