Pneumothorax Ex Vacuo by Severe pleuramesothelioma

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Pneumothorax ex vacuo is a rare type of pneumothorax which forms adjacent to an atelectatic lobe. Pneumothorax ex vacuo occurs if the underlying lung is unable to expand, for example due to bronchial obstruction under severe pleuramesothelioma. In this situation, the pleural effusion was caused by lung collapse, leading to negative pressure in the pleura which gradually pulled in fluid. The primary problem is not the pleural effusion, but rather the fact that the lung cannot expand. Our patient has severe pleuramesothelioma. The palliative chemotherapy was already initiated. Due to progressive dyspnea, a thoracentesis with implication of pleurX-catheter was performed in this situation.

Pneumothorax ex vacuo is a normally benign entity which doesn’t benefit from chest tube placement and can usually be observed. In our case, this is a malign entity; therefore the lung of our patient could not expand. Although pneumothorax ex vacuo may possibly be avoided by performing small-volume thoracentesis, it remains unclear if it is a beneficial approach as it may leave the unexpandable lung obscured. Our patient benefited from the small-volume thoracentesis in form of pleurX-catheter.

Pneumothorax ex vacuo Patients are mostly asymptomatic. In our case is the primary problem severe pleuramesothelioma with massive effusion. Our Patient has huge problem of breathing. Even though the lung of our patient was incapable of expanding, the breathing difficulties were clearly reduced through the pleurX-catheter. Our patient definitely benefited from the intervention of catheter. The chemotherapy will be continued (Figure 1a and 1b).

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Figure 1a: Severe pleuramesothelioma of right side with massive effusion.

Figure 1b: After implication of pleurX-catheter, clinical improvement of patient condition.