A Rare Complication of Three Field Oesophagectomy

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Three field oesophagectomy (Akiyama Oesophagectomy) is the only curative surgical procedure described for oeophageal carcinoma which has more than 60% of 5-year survival rate. Tracheo mediastinal fistula following oesophagectomy is a very rarely reported complication in medical literature. A 60 year old patient was diagnosed with stage II oesophageal carcinoma, of signet ring cell type at the gastro-oesophageal junction and underwent oesophagectomy with three field nodal dissection. His recovery from surgery was uncomplicated. On the 10th post-operative day, he developed massive surgical emphysema extending to face, neck and chest bilaterally. He became dyspnoeic and desaturated (SpO2 80%) within a few minutes. Endotracheal intubation was performed and the airway was secured immediately. Bilateral intercostal tubes and subcutaneous tubes were inserted. However, there was continuous bubbling of gases through the chest drain bottle. Urgent fibreoptic bronchoscopy was performed that revealed a fistulous opening in the posterior aspect of the trachea, 2 to 3 cm above the carina. The patient was conservatively managed with thoracic surgical opinion. He was weaned from positive pressure ventilation on to spontaneous mode. Unfortunately, he deteriorated while awaiting thoracic surgical intervention and succumbed. Tracheo-mediastinal fistula is a rare but life-threatening complication following oesophagectomy. During the surgical procedure, dissection around the posterior tracheal wall needs to be done cautiously to minimize this complication and surgical repair of the fistula would be a treatment modality.

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