LETTERS TO THE EDITOR

Tracheobronchial Stenting for Management of Bronchopleural Fistula

The Editor

Sir,

We read with great interest the article on the closure of bronchopleural fistula with tracheobronchial stenting carried out by Tulloch-Reid *et al* and published in the West Indian Medical Journal (1). We think that, the use of stents in the treatment options of bronchopleural fistulae will be accepted more and more. In one of our cases in whom we used many surgical options, the success achieved by using tracheobronchial stent is promising. In this presentation, we would like to share our experience on this subject.

The index case was a 53-year old male patient. Right upper sleeve lobectomy was done due to squamous cell lung cancer. There was surgical revision on the 6th postoperative day due to massive air leakage and haemoptysis. There was necrosis in the stapler line of the lung parenchyma which was repaired primarily. Four days later, air leakage and purulent flow occurred from the drains. At bronchoscopy, an opening in the bronchial anastomosis line was observed. The patient was returned to the operation theatre and right pneumonectomy was done because of total necrosis in lung parenchyma and the bronchial stump was wrapped by omentum. Ten days later, air leakage re-occurred. At bronchoscopy, a bronchopleural fistula was detected. A polyester coated conic self-expandable stent (Novatech®, Silment SM Self-Expandable) was implanted by means of fluoroscopy and rigid bronchoscopy in the region up to 1 cm of the left main-stem bronchus from 2 cm over the carina (Fig. 1). In the postoperative period, the massive air leakage decreased and disappeared on the 2nd day. Open thoracostomy was also done. He was discharged on the 9th postoperative day. After a stable seven-month period, he got empyema. By using rigid bronchoscopy, the stent was removed. During the removal, no difficulties were encountered and it was observed that the fistula was closed. The intention was to bypass the fistula with a stent allowing air directly into the left lung avoiding the left mainstem bronchus with its content of the empyema. After a year, the patient remains asymptomatic.

In addition to its easy application and minimally invasive process, the flexible structure of the stent was an important advantage as it made a clear easy angle between the trachea and the left mainstem bronchus (2). Besides, the stent did not prevent the closing of the fistula spontaneously.

Figure**:** View of tracheobronchial stent on chest roentgenogram.

In addition, it is worthy discussing whether the application of a stent is an alternative but last remedy or is it a treatment method which should be taken into consideration initially. The positive results obtained support the idea that the use of a stent should be thought of in the early stages of the treatment protocol. However, the widespread use of stents in the treatment of bronchopleural fistula and the long term results will provide the correct answer.

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