

Hôpital Marie Lannelongue

Airway dehiscence following silicone stent implantation for stenosis post lung transplantation, a rare complication

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Case presentation:

- A 47 years old female patient, with bilateral lung transplantation for pulmonary hypertension secondary to scleroderma.
- 5 months later, she developed multiple airway stenosis of the RMB, BI and the LMB, initially treated with multiple bronchoscopic dilatations followed by LMB stenting using a silicon stent 10x20mm.
- At day 11 after stenting, she presented with shortness of breath, tachypnea, fever and was ICU admitted due to septic shock and respiratory distress syndrome.
- CT scan showed atelectasis of the LLL with multiple bilateral pulmonary infiltrates. The patient was then intubated and mechanically ventilated. Fluid resuscitation, vasopressors, inotropes together with antimicrobial were instaured.
- FOB showed perfectly positioned stent in the left main bronchus. BAL was positive for a pseudomonas aeroginosa.
- 10 days later, a new CT scan was done showing multiple bilateral excavated lung nodules and an 18 mm donor's left main stem diameter.

- FOB showed LMB dehiscence with stent floating in the airway with necrosis of the donor's bronchus, leading to stent ablation
- Bronchoscopic surveillance showed healing stenotic LMB which was then dilated.



Conclusion:

- Airway stenosis is the most common airway complication following lung transplantation, that is managed by dilatation then stenting when recurrence.
- Airway dehiscence after stenting is an uncommon complication to our knowledge.
- We attribute the dehiscence in this case to the septic shock and the role of vasopressors in reducing airway blood flow at an early stage of the post transplantation period.