

Use of silicon stents for stenotic airway complications in lung transplantation

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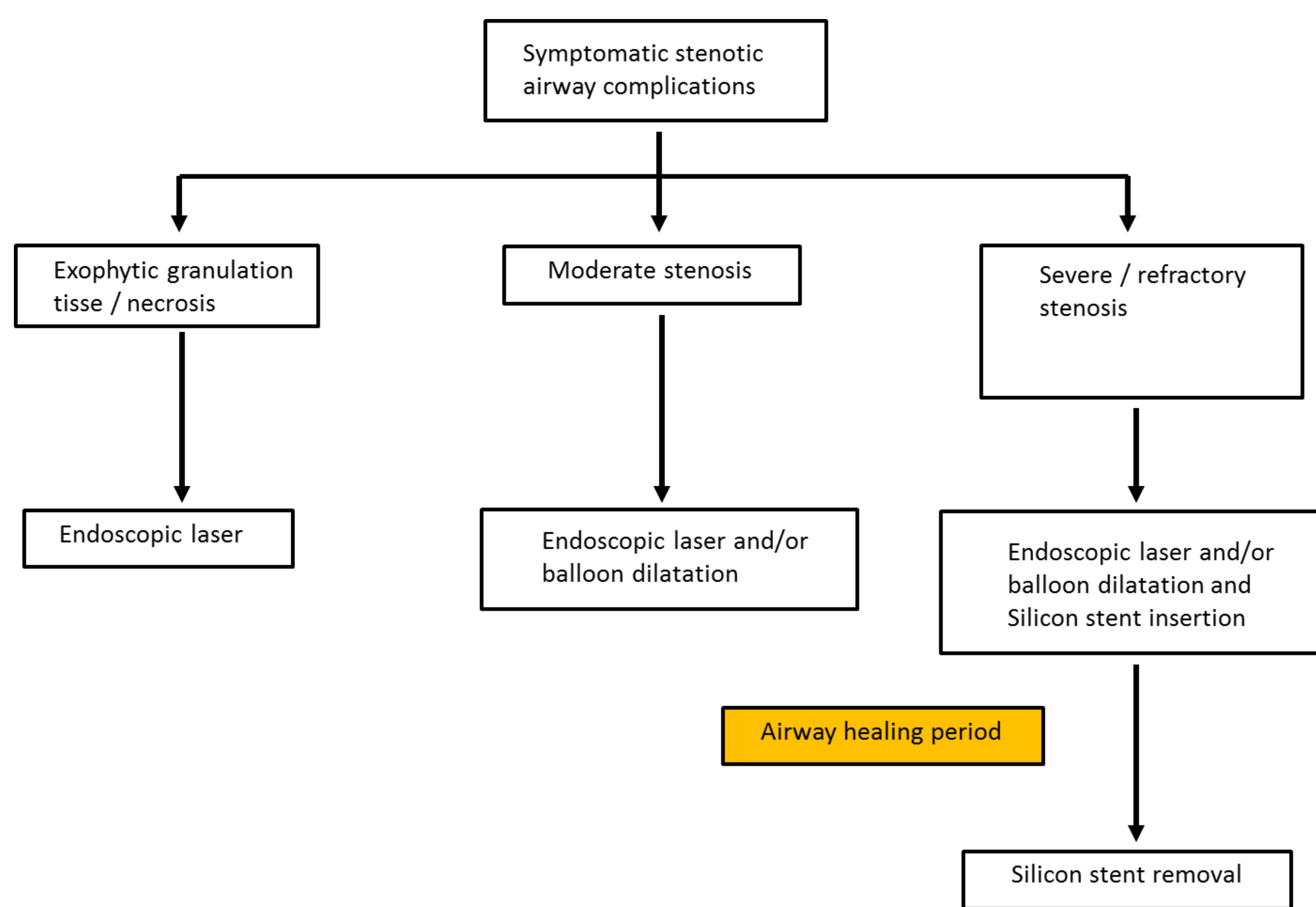
Background

Stenotic airway complications are frequent after lung transplantation, but the use of self-expandable metal stents is associated with several complications. We evaluate the outcome of our treatment strategy to use silicon stent insertion and subsequent removal in a cohort of lung transplant recipients (Fig. 1).

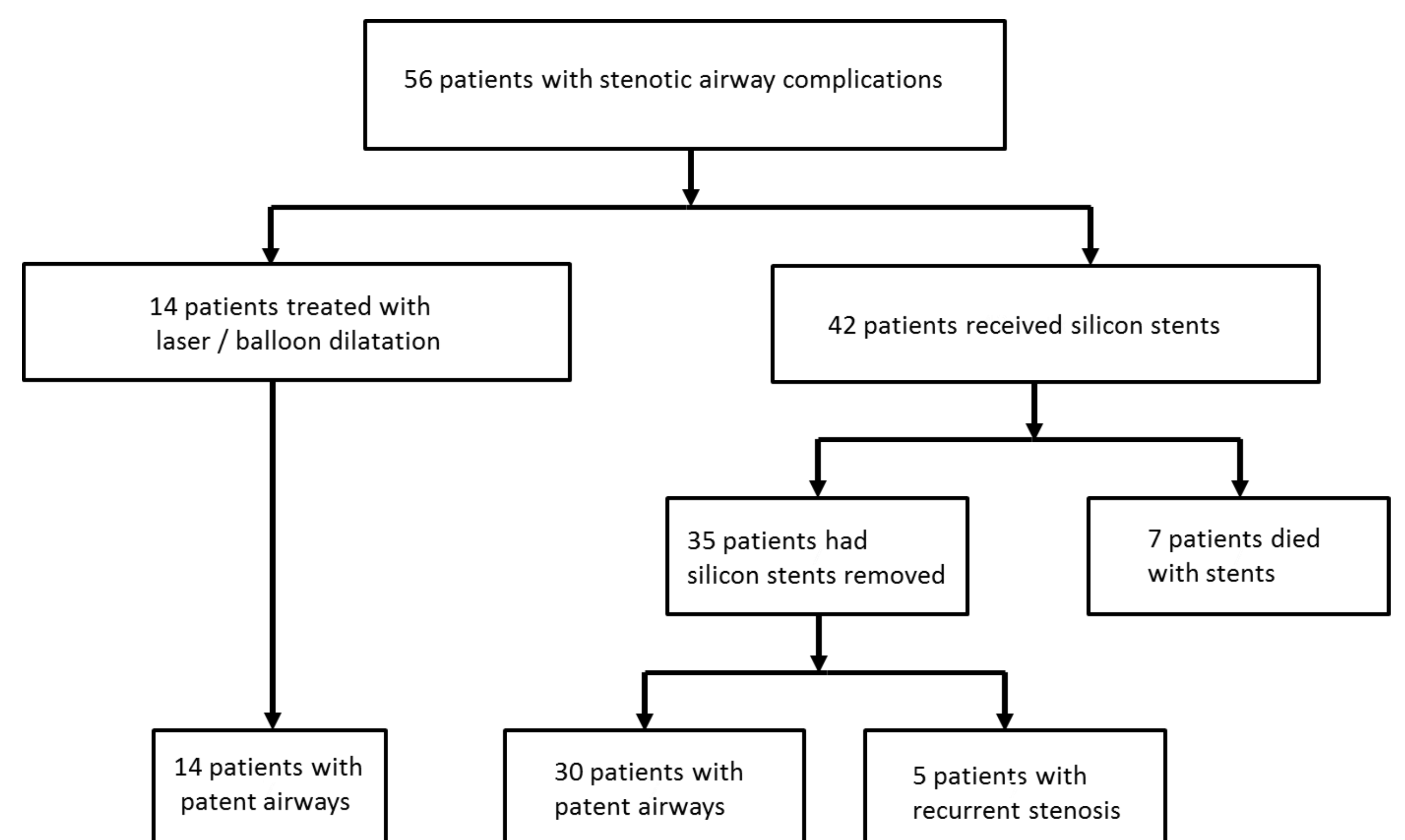
Materials and methods

All patients receiving lung transplant at Oslo University Hospital in the period 1990-2015 were regularly examined with lung function tests and bronchoscopy and prospectively included in our registry. Moderate bronchial stenosis, and exophytic granulation tissue or necrosis were treated with endoscopic laser and / or balloon dilatation. In severe or refractory stenosis, silicon stents were inserted during rigid bronchoscopy, and removed at a time determined by endoscopic assessment of airway healing. Bronchial washings were collected for microbiological analysis before stent insertion, while the stents were in place, and after removal.

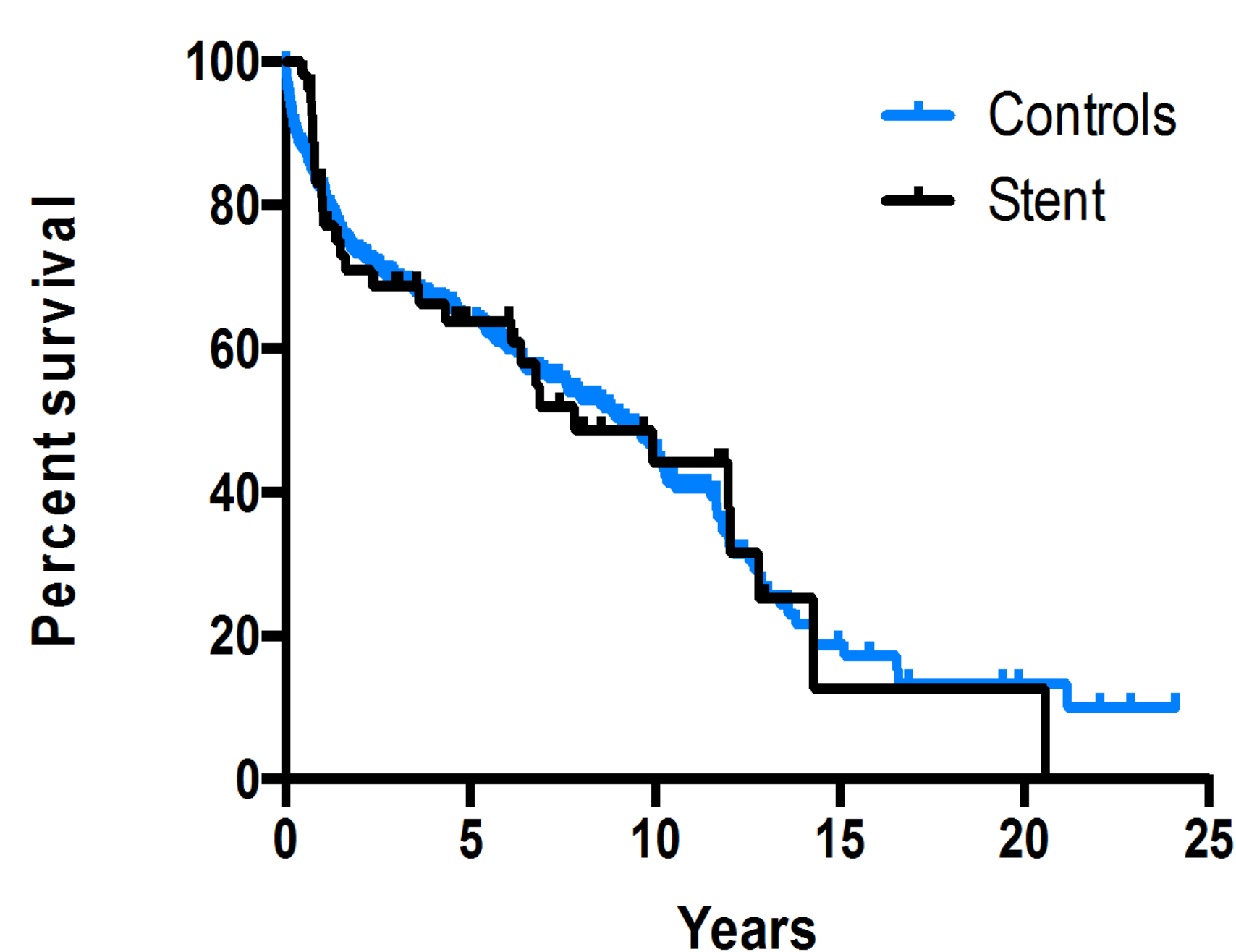
Fig.1 Treatment strategy



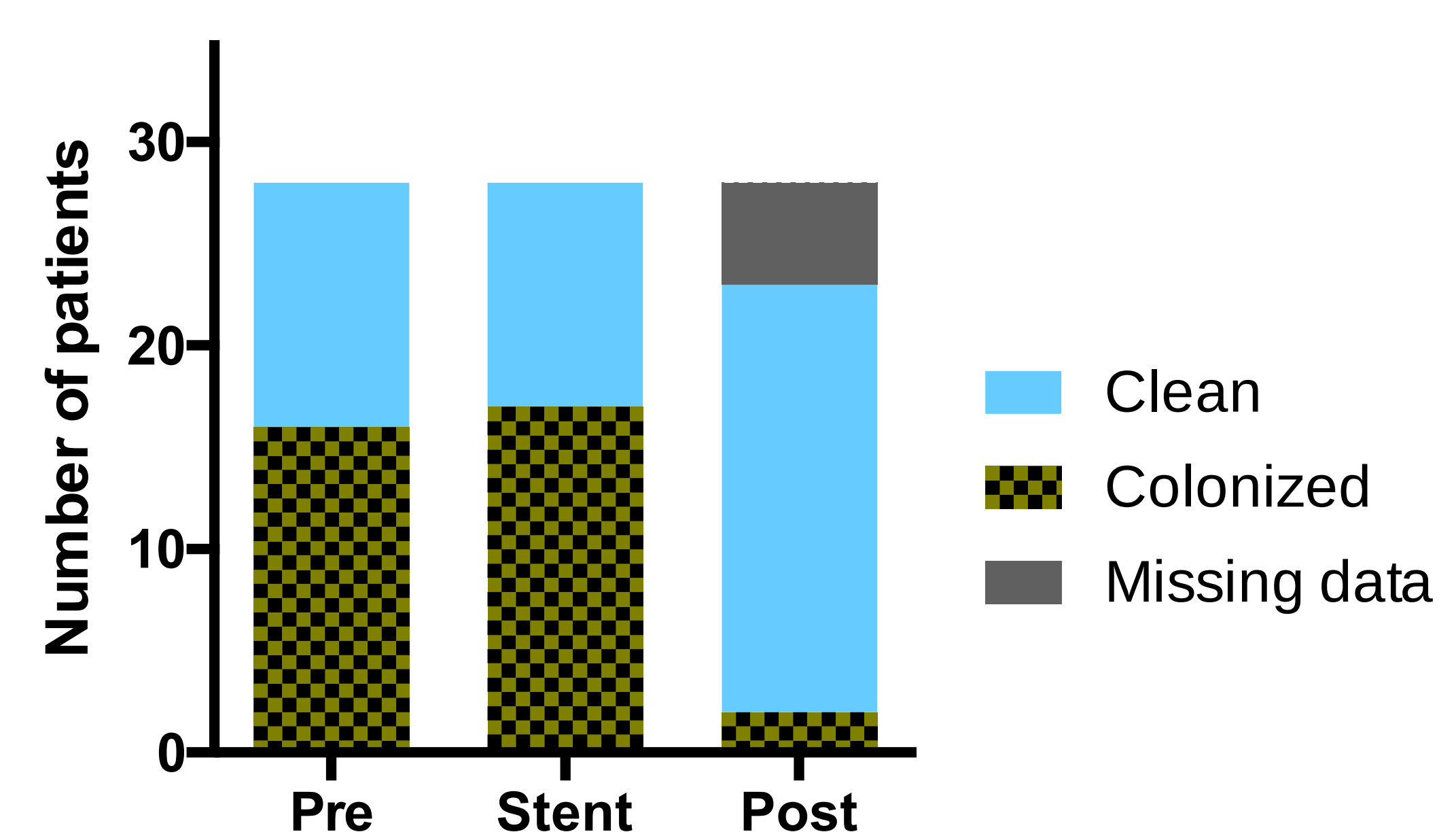
Results: Among 470 lung transplant recipients, 56 patients were treated



Long term survival



Airway colonization



CONCLUSION

Treatment of stenotic lung transplant airway complications with silicon stents achieves long term airway patency and is associated with non-inferior survival to that of recipients without airway complications