SLIDE TRACHEOPLASTY FOR CONGENITAL TRACHEAL STENOSIS: A TWO-YEAR SINGLE-CENTRE EXPERIENCE

GOVINDARAJAN G[1], MOHD KHASSAN LH[1], ZULKIFLI MFE[1]

[1] *HOSPITAL SULTAN IDRIS SHAH SERDANG, SELANGOR, MALAYSIA*

Background:
Congenital tracheal stenosis (CTS) is a rare but life-threatening condition frequently associated with congenital heart disease. Slide tracheoplasty has become the preferred surgical technique, providing better outcomes compared with patch augmentation or resection with end-to-end anastomosis. Here, we report our two-year experience from a single-centre.

Methods:
We retrospectively reviewed all patients who underwent slide tracheoplasty in Hospital Serdang, Malaysia between January 2023 and December 2024. Demographic data, associated anomalies, operative details, postoperative course, complications, and outcomes were analyzed.

Results:
Twelve patients (10 males, 2 females) underwent slide tracheoplasty during this study period. The median age at surgery was 8 months (range 2–110) and the median weight was 6.45kg (range 3.5–28.5). 2 children had syndromic associations and 9 (75%) had congenital heart anomalies. All 9 patients with cardiac anomalies underwent concomitant cardiac surgery. The median cardiopulmonary bypass time was 306 minutes (range 153–380).

Postoperatively, the median ventilation duration was 6.5 days, with the median ICU stay of 14 days, and the median hospital stay of 30.5 days. Complications occurred in 6 patients (50%), including granuloma formation requiring reintervention, chylothorax, and vocal cord palsy. There was 1 in-hospital mortality (8%) which occurred 5 months after surgery. At median follow-up of 15 months, the majority of survivors had good airway patency and symptom improvement.

Conclusion:
Our two-year single-centre experience demonstrates that slide tracheoplasty offers acceptable outcomes, even in patients with complex cardiac anomalies. Multidisciplinary care, meticulous perioperative management and long-term follow-up remain essential for improved survival and airway function.