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CONSERVATIVE TRACHEAL MANAGEMENT OF PATIENTS WITH PULMONARY ARTERY

SLING: POTENTIAL ALTERNATIVE TO ONE-STAGE CORRECTION?



To the Editor:

Recently, we read with great interest the published study entitled “Surgical Management Strategy of Slide Tracheoplasty for Infants With Congenital Tracheal Stenosis” by Chen and colleagues.¹ They reported an unprecedentedly large cohort of slide tracheoplasty for infants from 2010 to 2020 in Shanghai Children’s Medical Center with significant outcomes, and several predictors for adverse outcomes were defined. We first want to congratulate these authors on their impressive outcomes, with low reoperation rate (5%) and mortality rate (5%). However, we noticed that the high percentage of comorbidity of pulmonary artery sling (PAS, 86/120, 71.7%) and we had some concerns in this aspect.

As we known, PAS is sometimes complicated with tracheal stenosis caused by complete tracheal ring, also dubbed the ring-sling complex. Slide tracheoplasty is recommended for most tracheal management when presented with moderate-to-severe symptomatic airway problems. Although the reintervention and mortality rate after slide tracheoplasty have been improved recently, to the best of our knowledge, indications for tracheal intervention are still ambiguous and patients who undergo tracheoplasty experience longer duration to extubation and intensive care unit stay.^{2,3} Also, a study by Royal Children’s Hospital in Melbourne stated that long-term postoperative pulmonary dysfunction was observed in patients who underwent slide tracheoplasty,⁴ and 2 of 5 infants who died were

complicated with PAS in Chen and colleagues’ study. As a result, more specified indications for tracheoplasty and conservative tracheal management could be considered.

According to our center’s experience from 2018 to 2020, in 17 patients with ring-sling complex, we performed slide tracheoplasty for 8 (47.1%), and for patients who did not receive tracheal intervention, they all lived without tracheal disturbance during follow-up (unpublished data). Backer and colleagues⁵ reported a tracheoplasty rate of 76.5% in their cohort. Collectively, from our perspective, we prefer conservative tracheal management in this regard.

We acknowledge that Shanghai Children’s Medical Center is the largest center in treating congenital tracheal issues in China, and whether patients with ring-sling complex should receive tracheoplasty would be of great interest. We and colleagues from other centers would be very grateful if the authors could share their percentage of patients with PAS receiving tracheoplasty in the reported cohort and experience with determining surgical strategy in this regard.

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