Objectives: Children with Subglottic stenosis or bilateral vocal cord paralysis (SGS or BVCP) may present with significant airway distress that can cause tracheostomy. The objective of this study was to report our experience with the endoscopic posterior cricoid split with costal cartilage in children with SGS or BVCP.

Methods: The medical records of patients that were undergone endoscopic posterior cricoid split with costal cartilage were evaluated.

Results: There were 4 patients 2, 6, 8 and 13 years old, who underwent endoscopic posterior cricoid split with costal cartilage placement to expand the airway between 2014 and 2017 at Hacettepe University School of Medicine, Department of Otolaryngology. Three of patients had BVCP and one of them had SGS. Three of the patients (75%) were considered surgical successes airway patency without tracheotomy was achieved and followed up for.. months. In one of them, 2 years old patent airway could not be obtained due to cartilage necrosis and she needed tracheostomy and further operations.

Conclusion: Single stage endoscopic posterior cricoid split with costal cartilage placement although technically challenging in little children, can be an appropriate operation for SGS or BVCP in selected older patients where endoscopic operation can be performed.

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