TREATMENT OF UNILATERAL VOCAL FOLD PARALYSIS WITH ANSA CERVICALIS TO RECURRENT LARYNGEAL NERVE REINNERVATION IN A CHILD - a European case report

C. van den Boer¹ A.L. Wiersma,¹ G.R.R. Desuter³, J.P. Marie⁴, J. T. van lith-Bijl¹,²

Objective Pediatric unilateral vocal fold paralysis is relatively rare, several treatment options are available today: speech therapy, medialization with temporary filler, thyroplasty and laryngeal reinnervation. This latter technique is not widely used and no European publications are available. Therefore, we share our experience of a European case report of a laryngeal reinnervation in a child with unilateral vocal fold paralysis (UVFP).

Methods A 13-year-old boy with dysphonia secondary to a left-sided UVFP post-cardiac surgery underwent a reinnervation procedure using an ansa cervicalis to recurrent laryngeal nerve transfer after 12 years of nerve denervation. The procedure was combined with left-sided vocal fold fat augmentation. Perceptual analysis, acoustic findings and laryngoscopy, were measured preoperatively and post-operatively at 1 and 2 years.

Results The perceptual voice quality improved, most evidently between 1 and 2 years post-surgery. The patient experienced objective as well as subjective improvement and is satisfied with the result. As expected laryngoscopy after 1 and 2 years post-surgery showed no physiological mobility of vocal fold concerned. EMG evidence of reinnervation was obtained.

Conclusion Laryngeal reinnervation could be considered as a treatment option of unilateral vocal cord paralysis in children even after long-term delay.

¹ Department of Otorhinolaryngology, Academic Medical Centre, Amsterdam, the Netherlands
² Department of Otorhinolaryngology, Flevoziekenhuis, Almere, The Netherlands. JvLith@Flevoziekenhuis.nl
³ Otolaryngology-Head and Neck Surgery Department, Voice and Swallowing Center, Université Catholique de Louvain, Cliniques Universitaires Saint-Luc, Brussels, Belgium
⁴ Otolaryngology-Head and Neck Surgery Department, Rouen University Hospital, Rouen, France.