The Otolaryngologist's Approach to the Patient with Down Syndrome

Regina Rodman, MD*, Harold S. Pine, MD

KEYWORDS

• Otolaryngology • Down syndrome • Quality of life • Morphology • Otitis media • Hearing loss • Obstructive sleep apnea • Tonsillectomy • Sinusitis • Intubation • Acquired subglottic stenosis

KEY POINTS

- The child with Down syndrome should undergo behavioral audiologic testing every 6 months, or every 3 months if the patient has very stenotic ear canals. Treatment of hearing loss caused by recurrent otitis media and otitis media with effusion (OME) should be aggressive, with close follow-up. Parents should be prepared for multiple sets of pressure equalization (PE) tubes throughout the child's life.
- Up to 80% of patients with Down syndrome have obstructive sleep apnea. All children with Down syndrome should get an overnight polysomnography study between the ages of 3 and 4 years. Parents are not reliable in assessing sleep apnea.
- Primary treatment of obstructive sleep apnea syndrome (OSAS) is tonsillectomy and adenoidectomy, but parents should be prepared that this is curative in only 25% to 50% of children with Down syndrome, and that their child may require further surgery to alleviate obstruction, or the child may continue to require continuous positive airway pressure (CPAP).
- Airway anomalies are more common in the Down syndrome population, including subglottic stenosis. Prevention of subglottic stenosis can be achieved in part by using an endotracheal tube 2 sizes smaller than predicted for the patient's age, and ensuring that an audible air leak is present around the tube.
- During surgery in patients with Down syndrome, the surgeon should always be aware of the possibility of atlantoaxial instability, and no dramatic head movement should be made.

Conflict of interest: Neither Harold Pine, MD, nor Regina Rodman, MD, has any conflict of interest that pertains to this paper. Dr Harold Pine serves on the advisory board for Arthrocare Corporation.

Department of Otolaryngology, University of Texas Medical Branch, 301 University Boulevard, Galveston, TX 77555, USA
* Corresponding author.
E-mail address: reginarodman@yahoo.com

Otolaryngol Clin N Am 45 (2012) 599–629
doi:10.1016/j.otc.2012.03.010 **oto.theclinics.com**
0030-6665/12/$ – see front matter