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EDITORIAL

Pediatric Sleep Apnea

The surgery of tonsillectomy and adenoidectomy (T & A) has experienced a resurgence as a form of treatment to relieve pediatric obstructive sleep apnea (OSA).

It has been found to be effective for the treatment of OSA in most pediatric patients. However, not all children get the desired relief from T & A surgery to relieve obstructive sleep apnea. This is because factors other than adenoid and tonsil hypertrophy are also present and are left unaddressed.

This creates a dilemma for the surgeon who performed the surgery to provide relief to the child from OSA. The caregivers are then confronted with the problem on the best way forward. The best way forward lies in the direction of investigating and locating other sites that are the cause of obstruction and then logically moving onto the treatment modality that is appropriate for that problem.

Unfortunately, publications on outcomes of pediatric OSA and failed outcomes are scarce.

Drug-induced sleep endoscopy (DISE) has been found to be particularly useful in identifying the other areas that create obstruction and has been found to be very helpful. Polysomnography (PSG) has also been found to be effective in documenting and identifying causes of obstruction.

DISE has identified causes like hypertrophied lingual tonsils, enlarged inferior turbinates, and laryngomalacia, etc. PSG is currently the gold standard for the evaluation of failed T & A surgery to provide relief in pediatric OSA.

For problems like childhood obesity just a simple T & A is inadequate. Bariatric surgery, nutritional counseling and endocrine intervention will be required to bring about a solution for pediatric OSA. Thus, it becomes a multidisciplinary approach to address this problem.

Continuous positive airway pressure (CPAP) devices will also likely be needed. The role of Auto Adjusting CPAP (AutoPAP) is also a reasonable alternative.

Intranasal corticosteroids for use following T & A has been found to be useful and can be given for up to 6 weeks following T & A surgery.

A combination of anti-inflammatory therapy consisting of oral montelukast and intranasal budesonide medication for children with moderate persistent OSA has been found to be effective in moderate OSA. Many concerns surround montelukast. This is because montelukast has been associated with severe suicidal depression.

Other treatment options for OSA following T & A surgery are inferior turbinate reduction, expansion pharyngoplasty, hypoglossal nerve stimulation.

Finally, the possibility of tracheostomy can be considered in extreme cases of OSA.

Persistent OSA following T & A is far more common than it was once thought. Unfortunately, literature on the subject is wanting.

DISE and PSG are useful in locating the site/sites of obstruction. Evaluating and treating such children becomes a multidisciplinary effort. Several options like pediatric bariatric surgery are available in refractory patients.

When considering T & A surgery for pediatric OSA, it will be prudent for the surgeon to look for other likely sites of obstruction that could affect the results of T & A performed for OSA relief. Childhood obesity and craniofacial anomalies are obvious self-evident problems that will pose significant hurdles to providing relief from OSA if they are ignored or not factored in as a problem that needs to be addressed along with performing a T & A. This will go a long way to addressing pediatric OSA in a holistic and multidisciplinary manner. This will help in avoiding disappointments and aid in ensuring patient and their caregiver compliance to providing relief on a long-term basis from this health hazard.

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