Obstructive sleep apnea syndrome (OSAS) commonly occurs in children, and if not treated, can cause complications. The American Academy of Pediatrics (AAP) originally released a guideline on the diagnosis and management of OSAS in children in 2002, but because of the significant increase in research on OSAS, the guideline was updated in 2012. This update focuses on uncomplicated OSAS; children younger than one year, and patients with central apnea or hypventilation syndromes, or with OSAS that is associated with another medical condition (e.g., metabolic disease) are not discussed.

**Recommendations**

Most children with OSAS snore; however, parents rarely mention this at physician visits. Physicians should routinely ask at health maintenance visits if the child snores. If the child does snore or has other signs or symptoms of OSAS, more specific screening should be performed. Detecting OSAS early is beneficial, because treatment can help relieve symptoms, improve quality of life, prevent sequelae, and decrease use of health care services.

If a child regularly snores or has signs or symptoms of OSAS, the physician should perform polysomnography or refer the patient to a sleep specialist or otolaryngologist for further assessment. If polysomnography is not available, alternative testing (e.g., nocturnal video recording, nocturnal oximetry) may be performed. Compared with polysomnography, alternative testing has weaker positive and negative predictive values; however, performing these tests is preferred to performing only a clinical evaluation. If alternative testing does not confirm OSAS in a patient with high pretest probability, polysomnography should be performed.

Adenotonsillectomy is first-line treatment in children with OSAS who have findings on examination that indicate adenotonsillar hypertrophy and who do not have contraindications to surgery. In children with varying degrees of adenotonsillar hypertrophy who are obese, the physician will need to determine the benefits of adenotonsillectomy vs. alternative treatments on a case-by-case basis. Adenoidectomy or tonsillectomy alone may not be adequate, because lymphoid tissue is left behind, which may cause continued obstruction. Although adenotonsillectomy may be less effective in children who are obese, results can still be satisfactory in many patients. More study is needed in this population to establish which of these children are likely to benefit.

Because respiratory complications (e.g., worsening OSAS, pulmonary edema) can occur in patients with OSAS immediately after surgery, and because death from these complications has been reported, high-risk children who have adenotonsillectomy should be monitored in an inpatient setting after surgery.

Because studies indicate that many high-risk children (e.g., those with significantly abnormal baseline polysomnography, who have sequelae of OSAS, who are obese, or who have symptoms despite treatment)
continue to have symptoms after adenotonsillectomy, these patients should be referred to a sleep specialist or reassessed for persistent OSAS using objective testing.

If a child has symptoms, signs, or evidence of OSAS after adenotonsillectomy, or if the child does not undergo adenotonsillectomy, he or she should be referred for continuous positive airway pressure management.

If a child with OSAS is overweight or obese, weight loss should be recommended in addition to other therapies. Children being treated for OSAS should be reexamined for persistent signs and symptoms six to eight weeks after therapy is initiated to establish whether further treatment is necessary. In those with continued symptoms, objective testing should be performed or referral to a sleep specialist should be made.

Topical intranasal corticosteroids can be prescribed in children with mild OSAS (defined as an apnea hypopnea index less than five per hour) in whom adenotonsillectomy is contraindicated, or in children with mild OSAS after adenotonsillectomy. Long-term effects of corticosteroids for this indication are not known; therefore, the patient should be observed for recurrence and adverse effects.

LISA HAUK, Senior Associate Editor, AFP Online

Answers to This Issue’s CME Quiz

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