Untreated Obstructive Sleep Apnea in Children Leads to Long-term Complications

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Sleep is supposed to be a peaceful activity, not a battle to breathe. Watching a child struggle to get oxygen at night is one of the most heartbreaking things for one to witness. Obstructive sleep apnea (OSA) not only causes restless sleep in children, but can also lead to serious morbidities into adulthood. And not only are cardiovascular, metabolic, and endocrine problems linked to pediatric OSA, but OSA is also associated with behavioral and neurocognitive dysfunction.[1]

It is time for parents to take charge of their child's health now before OSA develops into more complicated conditions. Dentists are positioned to screen children and to make parents aware of current statistics and studies regarding OSA, especially since this condition has become increasingly more common with the prevalence of snoring in children at 3 to 12 percent, and OSA affecting up to 10 percent.[1]

Behavioral Problems and Attention Deficit Hyperactivity Disorder (ADHD)

In a study of 829 children, ages 8 to 11 years old, 5% of children were classified as having OSA, and 15% had primary snoring without OSA[2]. Children suffering from some form of sleep disordered breathing (SDB), such as sleep apnea or snoring, exhibited a higher prevalence of problematic behaviors including an increase in hyperactivity (19%), inattention (18%), aggressiveness (12%) and daytime sleepiness (10%)[3]. These conclusions remained significant among all ages, sex, race, household income, and respiratory health history.

In another study of 66 school-aged children diagnosed with ADHD, a presence of mild OSA was found. After treatment, behavior was improved more than in those who had received no treatment. Recognition of ADHD with OSA, and treatment of the underlying OSA has proven results in long-term behavioral improvements[4].

Children ages five and up often exhibit enuresis, behavior problems, deficient attention span, and failure to thrive, as well as snoring. With this in mind, it is important to encourage parents to seek a diagnosis and begin treatment for children before the condition affects not only their health but their day-to-day life including aggressive behavior, ADHD, delays in development and reduced scholastic performance. In our practice, we use a special screening questionnaire for children and I have listed some of the most pertinent questions below:

While sleeping, does your child:

- Snore?
- Exhibit “heavy” or loud breathing?
- Appear to struggle to breathe?

Does your child:

- Tend to breathe through the mouth during the day?
- Have a dry mouth on waking up in the morning?
- Exhibit morning headaches?
- Sometimes wet the bed?
- Wake up feeling unrefreshed in the morning
- Appear to be sleepy during the day?
- Appear to be easily distracted?
- Have problems with tasks or school performance?

Our visual intraoral assessment includes evaluating the tongue and tonsil size, Mallampati class, temporomandibular joints, screening for maxillary and mandibular constriction and the dental relationship.

Parents Need to Seek Care Now

We've seen that treating behavioral problems and other conditions is easier in children than it is in adults. As adults, behavioral problems such as ADHD, depression, anxiety or anger issues may be complicated and deep rooted. We can provide these adults with as many treatments as we can think of, but the one underlying cause of their development of these conditions may have never been solved: obstructive sleep apnea. Untreated sleep apnea leads to daytime sleepiness, aggression, irritability, and comorbidities. We need to encourage parents to take charge of their children's health before symptoms worsen and further complicate their lives.

Establish Referral Relationships Across Various Physician Specialties

A working relationship with the medical professionals in your community is essential in providing proper treatment for your patients. Treating childhood OSA is a team effort, with the patient's dentist, pediatrician, ENT, sleep physician and an orthodontic provider, specializing in jaw orthopedics, all potentially playing a role in diagnosis and treatment. Determine which sleep physicians have training in pediatric OSA.

Introduce yourself to the child's physicians and establish solid relationships by informing them that you are screening your pediatric patients for obstructive sleep apnea, will be referring to them for an evaluation and diagnosis and keep them in the loop with written follow-up reports.

Treatment Options

Treatment options for our pediatric population vary based on physician's opinion. It's been recommended that this population of patients is managed and in some cases treated with adenotonsillectomy[5], CPAP and maxillofacial expansion[6].

It's no secret that we want our children to grow into successful adults, so why hinder their development by ignoring sleep apnea symptoms? As mentioned, untreated OSA in children can lead to problematic behaviors, ADHD, depression, anxiety and deep rooted anger issues. Start screening now for a proper diagnosis for children to prevent the development of further complications as they become teenagers and adults.

Having a limited practice to Craniofacial Pain and Dental Sleep Medicine, Dr. Mayoor Patel, DDS, MS, RPSGT, D.ABDSM, DABCP, DABCDSM, DABOP, utilizes his experience and expertise to help dentists across the country excel in these areas within their dental practices. As Clinical Education Director with Nierman Practice Management, Dr. Patel develops up-to-date curriculum for their sleep apnea and craniofacial pain programs. Dr. Patel serves as a board member with the Georgia Association of Sleep Professionals, the American Board of Craniofacial Dental Sleep Medicine, American Board of Craniofacial Pain and American Academy of Craniofacial Pain. He also has taken the role as examination chair for the American Board of Craniofacial Dental Sleep Medicine and American Board of Craniofacial Pain.