Sleep News and Views

Andalusia Regional Sleep Center January 2016 Phone (877) 232-2717

Obesity and Sleep Apnea

"Sleep Apnea is highly prevalent in morbidly obese patients & associated with an increased risk of cardiac arrhythmias"

More than two-thirds of American adults are overweight or obese. These rates have been increasing for decades.

The new CDC report indicates that the U.S. adult obesity rate has risen sharply in the past few years, despite a push to eat healthier. The age-adjusted adult obesity rate climbed to nearly 38 percent in 2013-2014, up from 35 percent in 2011-2012. The rate of extreme or "morbid" obesity is also rising. More than six percent of adults now have a BMI of at least 40. This represents an excess weight of roughly 100 pounds or more.

One of the major health risks linked with obesity is obstructive sleep apnea. Thin people can have sleep apnea, however, a major risk factor for OSA is excess body weight. Data suggest that the rate of OSA has increased greatly over the last two decades. The most likely cause is the rise in obesity.

An estimated 12 to 18 million adults in the U.S. have untreated OSA. More emphasis should be placed on not only addressing the sleep apnea, but treating obesity in this population and it is also important to find better ways to enhance compliance with CPAP therapy and weight loss interventions.

Therefore, ***encourage thorough sleep evaluations focused on identifying and treating sleep disorders in this patient population.***

Thhttp://www.sleepeducation.com

Economic Impact of Untreated Sleep Disordered Breathing

- **The total economic cost of sleepiness equals approximately $43-56 billion.**[1]
- **Prior to a diagnosis of sleep apnea, patients utilized 23-50% more medical resources.**[3]
- **People with untreated OSA are at twice the risk of having a traffic accident.**[5]
- **For those with untreated moderate to severe OSA, motor vehicle collision risk can increase up to 15-fold.**[4]

1. Leger et al. Sleep 1994 3. Smith et al. Chest 2002 4. Horstmann et al. Sleep 2000 5. Teran-Santos et al. New Engl J Med 1999

Obesity & Depression Linked to EDS

Obesity and depression - *not only lack of sleep* - are underlying causes for regular drowsiness, according to Penn State College of Medicine researchers.

The researchers measured self-reporting of EDS at baseline and again an average of 7.5 years later in 1,395 men and women. Participants completed a comprehensive sleep history and physical exam and were evaluated for one night in the sleep lab. The researchers also recorded sleep, physical, and mental health problems and substance use and determined whether participants were being treated for physical and mental health conditions.

"Obesity and weight gain predicted who was going to have daytime sleepiness", said Dr. Fernandez-Mendoza, in a release. ***"Weight loss predicted who was going to stop experiencing daytime sleepiness".*** The association between body mass index and sleepiness was independent of sleep duration, meaning obese people may be tired during the day no matter how much sleep they get at night.

The primary underlying mechanism that makes obese people feel overly tired is like low-grade chronic inflammation. Fat cells, particularly from abdominal fat, produce immune compounds called cytokines that promote sleepiness, among other effects.

Depressed individuals in the study also had a high incidence of EDS. Physiologic sleep disturbances, including taking longer to fall asleep and waking up in the middle of the night, explained their daytime drowsiness.

According to Dr. Fernandez-Mendoza, "***The main causes of a sleepy society are an obese society, a depressed society, and to some extent, people who have a physiological disorder. By looking at patients more closely, we can start personalizing sleep medicine***."

http://www.sciencedaily.com/

In this issue:

Sleep Apnea & Obesity: The Connection

- **Affects many bariatric surgery candidates**
- **Must be considered as part of perioperative care for bariatric surgery**
- **Increases the occurrence of major post-operative complications in bariatric surgery patients & increases hospital costs**
- **Is improved by weight loss. Surgery does not necessarily eliminate sleep apnea in obese patients making long-term follow-up essential**
- **May develop and severity may be increased by weight gain**

"CPAP is effective for lowering blood pressure in patients with moderate to severe sleep apnea."

-New England Journal of Medicine

CPAP & Weight Loss: Lowers Blood Pressure

Obesity and OSA tend to co-exist and are associated with high blood pressure. Research from the Perelman School of Medicine at the University of Pennsylvania has shown that the combination of these two therapies for patients with OSA can help lower blood pressure.

According to lead study author Julio Chirinos, MD, PhD, "we found that the combination of weight loss and CPAP therapy is a better strategy to reduce blood pressure than either therapy alone."

They randomized 181 patients meeting the inclusion criteria of obesity, moderate-to severe OSA, and high levels of C-reactive protein (an inflammatory marker associated with heart disease) for a trial into one of 3 groups, for 24 weeks: [1] CPAP therapy; [2] a weight loss intervention (involving dietary & lifestyle intervention), or; [3] a combination of the two interventions. The authors analyzed changes in blood pressure in all groups.

As expected, patients on CPAP alone did not experience weight loss, whereas those randomized to weight loss or combination therapy experienced a significant reduction in body weight and body mass index. Reductions in brachial systolic pressure were observed in all 3 groups, however reduction in brachial pulse pressure reached statistical significance only in the combination therapy group. Among compliant patients, the reduction in brachial systolic blood pressure was significantly larger in the combination therapy group (14.1 mmHg) compared to either CPAP alone (3 mmHg) or weight loss alone (6.8 mmHg).

"More emphasis should be placed on not only addressing the sleep apnea, but treating obesity in this population and it is also important to find better ways to enhance compliance with CPAP therapy and weight loss interventions, according to Chirinos."

http://www.sciencedaily.com/releases/2013/03/130311090708.htm

The Benefits of CPAP Desensitization

Is your patient having difficulty adjusting to CPAP treatment despite having the proper fitting mask and adequate humidification? Is the mask or air pressure causing a claustrophobic or anxious feeling? Breathing with a CPAP machine does take some time to adjust to. Remind the patient—being in control of the process and taking steps to feel more comfortable will help during the acclimation period.

If CPAP Therapy is causing anxiety, try this ***step-by-step desensitization process***.

Spend up to 5 days completing each step (or until the anxiety no longer occurs) before moving to the next step.

STEP 1: Attach the mask to the machine and turn the power on. Wear the CPAP mask at home while awake for 10-15 minutes and gradually increase up to an hour each day. Practice breathing through the mask while watching TV, reading, or performing another sedentary activity that keeps the mind occupied. Use the ramp and EPR or C-Flex feature for comfort.

STEP 2: Use the CPAP during scheduled short naps at home.

STEP 3: Use the CPAP during the initial 3-4 hours of nocturnal sleep.

STEP 4: Use CPAP through the entire night of sleep.

If this doesn't work, have the patient return for a follow up visit. Consider Bi-level therapy, sleep medications, and/or pressure desensitization.