

Clinical Review Quarterly Newsletter - Summer 2008

Each year we continue to make advances in diagnosing and treating patients. Through this quarterly newsletter, we wish to share with you some of the factors that make this possible, as well as open communication with your office.

Please let us know if you would like to see a specific topic covered in our next issue. It is our goal to provide as much information as possible to better serve your patients. We appreciate the trust you place in us by allowing us to participate in the care of your patients.

Christopher P. Mathews
PRESIDENT & CEO

ties such as disorders in coagulation factors, endothelial damage, platelet activation, and increased inflammatory mediators might also play a role in the pathogenesis of cardiovascular disease.

Linkage between obstructive sleep apnea and cardiovascular disease is corroborated by evidence that treatment of sleep apnea with continuous positive airway pressure reduces systolic blood pressure, improves left ventricular systolic function, and diminishes platelet activation. Several systematic studies are necessary to explicate complex associations between sleep apnea and cardiovascular disease, which may be compounded by the involvement of diseases comprising the metabolic syndrome (i.e., central obesity, hypertension, diabetes, and dyslipidemia). *Large-scale, population-based studies testing causal models linking among sleep apnea, cardiovascular morbidity, and metabolic syndrome are needed.*

Obstructive Sleep Apnea and Cardiovascular Disease: Role of the Metabolic Syndrome and its Components

Jean-Louis G, Zizi F, et al.
J Clin Sleep Med. 2008 Jun 15;4(3):261-72

Although obstructive sleep apnea and cardiovascular disease have common risk factors, epidemiologic studies show that sleep apnea increases risks for cardiovascular disease independently of individuals' demographic characteristics (i.e., age, sex, and race) or risk markers (i.e., smoking, alcohol, obesity, diabetes, dyslipidemia, atrial fibrillation, and hypertension). Individuals with severe sleep apnea are at increased risk for coronary artery disease, congestive heart failure, and stroke. The underlying mechanisms explaining associations between obstructive sleep apnea and cardiovascular disease are not entirely delineated. Several intermediary mechanisms might be involved including sustained sympathetic activation, intrathoracic pressure changes, and oxidative stress. Other abnormali-

Usefulness of Truncal Obesity Indices as Predictive Factors for Obstructive Sleep Apnea Syndrome

Martinez-Rivera C, Abad J, et al.
Obesity (Silver Spring). 2008 Jan;16(1):113-8.

Optimization of the indications for nocturnal polysomnography in the diagnosis of obstructive sleep apnea syndrome (OSAS) could lead to significant reductions in health expenditure. To this end, the authors assessed the usefulness of truncal obesity measurements in the diagnosis of OSAS. One hundred ninety-two patients (152 men and 40 women) referred to the clinic with suspected OSAS underwent a complete polysomnography study and their BMI and truncal obesity measurements were obtained.

Comparison of patients defined as snorers with OSAS patients revealed significant differences in the truncal obesity parameters such as waist-to-hip ratio (0.94 vs. 0.98) and waist circumference (100.7 cm vs. 106.3 cm). The authors found no significant differences between BMI values in the two

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Truncal Obesity ...continued

groups. Indices of truncal obesity were analyzed as predictive factors for OSAS using a statistical model that included variable sex, and in which waist-to-hip ratio, BMI, neck circumference, and age were analyzed as binary variables. According to this model, patients' risk of suffering from OSAS was 2.6 times greater if the waist-to-hip ratio was >1 in men and >0.85 in women. The risk of OSAS was also increased if the patients were men or over 52 years of age. *The authors concluded that obtaining simple measurements such as those for truncal obesity may help prioritize the use of polysomnography in patients with a greater risk of OSAS. The authors results suggest that BMI is not a good predictor of OSAS in a group of patients with a high BMI.*

Age Does Not Hamper the Response to Pulmonary Rehabilitation of COPD Patients

Di Meo F, Pedone C, et al.
Age Ageing. 2008 Jun 19

Pulmonary rehabilitation (PR) improves health status and exercise tolerance, but not respiratory function in patients with chronic obstructive pulmonary disease (COPD). The author's objective was to identify predictors of improvement in the 6-min walked distance (6'WD) in elderly COPD patients after PR. This was a prospective observational study performed in an ambulatory rehabilitation setting. The investigators enrolled 74 patients aged 65-83 years with stable COPD in GOLD stage 3-4. About half (45.6%) of them had a basal O₂ saturation of 90% or less. After a baseline multi-dimensional assessment, patients underwent a 20-session rehabilitation cycle including training of the upper and lower extremities, and respiratory exercises, along with education sessions. The difference between final and basal 6'WD was expressed as a per cent of the basal value (6'WD gain). Patients were divided into two groups according to whether the 6'WD gain was above or under the 75th percentile, corresponding to 33% gain.

Results showed that patients whose 6'WD improved more had lower baseline forced expiratory volume in the first second (FEV₁)/forced vital capacity (FVC) (46.0 versus 52.2%) and baseline 6'WD, both as an absolute value (329.5 versus 408.9 m) and as a per cent of the predicted (71.1 versus 93.5%). After correction for potential confounders,

baseline 6'WD was the only variable associated with the outcome. *The authors concluded that among elderly patients with COPD, a comprehensive rehabilitation program can significantly improve the 6'WD even in the presence of chronic hypoxemia. The most physically impaired patients achieve the greatest benefit from rehabilitation.*

High Prevalence of Eating Disorders in Narcolepsy with Cataplexy

Fortuyn HA, Swinkels S, et al.
Sleep. 2008 Mar 1;31(3):335-41.

The authors wanted to study the prevalence of and symptoms of eating disorders in patients with narcolepsy. They performed a case-control study comparing symptoms of eating disorders in patients with narcolepsy versus healthy population controls, using the Schedules for Clinical Assessment in Neuropsychiatry (SCAN 2.1). To study whether an increased body mass index (BMI) could be responsible for symptoms of an eating disorder, they also compared patients with BMI-matched controls, using the SCAN as well as the Eating Disorder Examination-Questionnaire. Patients with narcolepsy/cataplexy (n = 60) were recruited from specialized sleep centers. Healthy controls (n = 120) were drawn from a population study previously performed. Separately, 32 BMI-matched controls were recruited.

In total, 23.3% of the patients fulfilled the criteria for a clinical eating disorder, as opposed to none of the control subjects. Most of these were classified as Eating Disorder-Not Otherwise Specified, with an incomplete form of binge eating disorder. On the symptom level, half of the patients reported a persistent craving for food, as well as binge eating. Twenty-five percent of patients even reported bingeing twice a week or more often. When compared with BMI-matched controls, the significant increases persisted in symptoms of eating disorders among patients with narcolepsy. Except for a higher level of interference in daily activities due to eating problems in patients using antidepressants, medication use did not influence the authors findings. *The authors concluded that the majority of patients with narcolepsy experience a number of symptoms of eating disorders, with an irresistible craving for food and binge eating as the most prominent features. Eating disorder symptomatology interfered with daily activities. These findings justify more attention for eating disorders in the treatment of patients with narcolepsy.*