**Does Sleep Apnea Treatment Prevent Heart Disease?**

Despite presenting strong evidence of an association between obstructive sleep apnea and cardiovascular disease, Dr. Somers was careful not to say that treating the sleep disorder would prevent heart disease. “Beyond lowering blood pressure and perhaps increasing EF (ejection fraction) in people with heart failure, treating sleep apnea has not been proven to prevent any cardiovascular end points,” he said.

We have no evidence that treating sleep apnea will prevent a cardiac death, a heart attack, a stroke, or anything,” he said. “All we have now are soft end points—blood pressure, (and) heart rate.”

Many markers of heart disease—notably hypertension, elevated levels of C-reactive protein, and systemic inflammation—occurred with sleep apnea according to Dr. Somers. Consequently, he maintained, it makes sense that an untreated sleep apnea could lead to cardiovascular disease.

Moreover, in addition to his work showing a link with atrial fibrillation, he cited studies associating sleep disorders with hypertension, sudden cardiac death, and heart failure. Among these findings, he noted the following:

- **Apnea can cause hypertension, and hypertension becomes worse if apnea is not treated (N. Engl. J. Med. 2000;342:1378-84).**
- **Obstructive sleep apnea patients were two to three times more likely to have a relative who died of a heart attack or suddenly of an unexplained cause, according to a review of 500 people by Dr. Somers and his colleagues.**
- **Although 6 a.m.-11 a.m. is the peak time for sudden cardiac deaths in the general population, 46% of the sudden cardiac deaths in people with obstructive sleep apnea occurred between midnight and 6 a.m. (N. Engl. J. Med. 2005;352:1206-14).**

About 10% of heart failure patients have obstructive sleep apnea and 40% have central sleep apnea, Dr. Somers added, attributing the data to studies conducted during the 1990s. “Since then,” he said, “patients are substantially fatter, and we think there are more obstructive apneas in heart failure patients than there used to be.”

Although Dr. Somers believes in treating sleep disorders to prevent heart disease, he added that his colleagues in cardiology won’t be convinced until cause and effect is proved.

As for randomized controlled trials providing that proof, a major obstacle emerged in a question from the audience at the meeting. Institutional review boards are not likely to approve a trial that allows a sleep disorder to go untreated because the patient is randomized to a control group.