Left Ventricular Dysfunction and Sleep Apnea Syndrome

Cause or Consequence?

To the Editor:

In an article published recently in CHEST (October 2002),1 Dr. Laaban and colleagues conclude that obstructive sleep apnea syndrome (OSAS) may be a direct cause of daytime left ventricular systolic dysfunction (LVSD) that can resolve following treatment of OSAS with nasal continuous positive airway pressure (CPAP). There was no confounding factor during the follow-up period. We did not start any medical treatment of LV failure in any of the study patients. Twenty-three percent of the patients with LV systolic dysfunction had been receiving angiotensin-converting enzyme inhibitors for several years as antihypertensive medication. Antihypertensive medications were not modified during the follow-up period. No weight loss that could have improved LV function was observed during the follow-up period.

Dr. Bendjelid stated that the improvement of LV function could be a direct effect of nasal CPAP on the heart, independently of reversal of nocturnal apneas. I agree that nasal CPAP could increase cardiac output in patients with LV failure; however, to my knowledge, a normalization of LV function had not been excluded in the present study. We may expect that this statement may be erroneous, as to our knowledge the onset of an idiopathic dilated cardiomyopathy in patients with LVSD could not be excluded. Finally, we believe that more research is required to better understand the pathophysiological association between OSAS and LVSD and to define the potential role of CPAP in the treatment of chronic heart failure.

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REFERENCES