Methadone Used for Pain Linked to Sleep Apnea

**The sleep-disordered breathing seen in baby boomers being treated for chronic pain is severe.**

BY JANE SALODOF MACKEIL
Southwest Bureau

D r. Amanda A. Beck and her colleagues in Albuquerque were puzzled by some of their patients at the University of New Mexico’s Sleep Disorders Center. The patients took methadone, but they did not have histories of drug abuse. They were middle-class baby boomers under treatment for chronic pain, and their nighttime breathing problems were severe. They needed a variable positive airway pressure device, the VPAP Adapt, recently approved for the treatment of central sleep apnea, mixed sleep apnea, and periodic breathing. “We are getting this very complicated sleep-disordered breathing, which used not to be in our lexicon,” Dr. Beck, director of adult services, said, at a university-sponsored psychiatric symposium, where she described her center’s experience as a red flag for methadone prescribers.

Consequently, up to a third of deaths from methadone use is long-standing. Reports linking methadone to sleep-disordered breathing are a recent and, as yet, poorly understood phenomenon. Dr. Beck said her group and other sleep centers are documenting cases of sleep-disordered breathing in methadone patients, now estimat ed at one per week in her clinic.

In 2003, physicians at the Intermountain Sleep Disorders Center in Salt Lake City described ataxic breathing, central apnea, and metabolic instability. Dr. Harry Teichtahl, who practices in Albuquerque. The patients took methadone, according to the abstract.

In another study that Dr. Webster presented at the same meeting, he compared polysomnography data on 73 opioid-naive primary care patients who had been referred for sleep studies with data on 139 asymptomatic chronic pain patients taking opioids. In both groups, 16% of the patients had severe sleep apnea. Obstructive sleep apnea was more common in the primary care patients at 89%, vs. 77% of cases in the pain group. Central sleep apnea, a more severe condition, occurred more in the pain patients: 32%, vs. 6% of the primary care cases.

As a result of his ongoing research, Dr. Webster has become a campaigner for more conservative use of methadone. “No one was aware this was a problem. Most pain practices would not ordinarily order sleep studies,” he said in an interview with this newspaper.

Dr. Webster emphasized that he is not opposed to methadone use for pain management. “But patients and physicians need to understand it is not like other opioids.” Recent reports have also associated methadone with poor sleep quality in addiction patients at maintenance programs.

A U.S. study reported that 84% of 225 patients were “poor” sleepers with Pittsburgh Sleep Quality Index scores of 6 or higher (J. Subst. Abuse Treat. 2004;26:175-80). Recent findings that obstructive sleep apnea patients consume three times the caffeine of nonapneic individuals on a daily basis led to speculation that those with sleep apnea were self-medicating with caffeine to counteract daytime sleepiness. Caffeine has been shown to enhance cognition, and the findings of the current study suggest this is an additional effect experienced by those who use caffeine for that purpose.

—Sharon Worcester

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**Methadone Prescribing on the Rise**

N ot without irony, Dr. Webster said physicians turned to methadone for treatment of pain in part because they believed it was safer than other opioids and less likely to bring regulatory objections. When OxyContin abuse became a public health crisis, they saw methadone as a drug with little street value or abuse potential.

“Physicians think it is safe because it has been used for addiction so many years,” he said.

Health insurers also appear to have played a role. Methadone is the cheapest opioid by far. One estimate puts the monthly cost to pharmacies at $8 for an oral dose of 5 mg taken three times a day, based on wholesale prices. In comparison, chronic pain therapy with generic sustained-release morphine would cost $101.50; MS Contin, $113.50; OxyContin, $176.50; and Duragesic, $154 (Am. Fam. Physician 2005; 71:1353-8).

Confronted with such steep price differences, some health plans reportedly mandated that drug of choice when an opioid is prescribed for pain. In many cases, Dr. Beck said, that is why methadone is being prescribed to older pain patients with comorbidities and other medications that can interact with methadone.

It is really irresponsible of insurers and HMOs, of anyone who sets up a formulary that designates the most dangerous in its entire category as the first-line agent to be used. I think that is unacceptable,” she said.

Formularies also are responsible for an increase in methadone prescribing by primary care physicians who are not familiar with its unique characteristics, according to Dr. Howard A. Heit, a chronic pain specialist certified in addiction medicine who practices in Fairfax, Va. “Are we forcing doctors to use a medication that they don’t have the knowledge to use, which could be fraught with major complications, which will cost more in the long run?” he asked during an interview.

Dr. Heit served on a U.S. Substance Abuse and Mental Services Administration panel that reported in 2004 on nationwide increases in methadone-related deaths. The panel cited as a likely factor a fivefold increase from 1998 to 2002 in the volume of methadone distributed through pharmacies. The risk of apnea was not considered because it was not an issue at that time, he said.

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**Caffeine Associated With Improved Cognition in Apnea Patients**

**SALT LAKE CITY — Increased caffeine intake was associated with better cognitive functioning in patients with obstructive sleep apnea, according to the results of a small study.**

In 42 patients with untreated obstructive sleep apnea, a statistically significant inverse relationship was found between caffeine intake and a global deficit score that was derived from an aggregate measure of neuropsychological functioning. Dr. Daniel Norman reported at the annual meeting of the Associated Professional Sleep Societies. The association persisted after controlling for body mass index and apnea-hypopnea index, said Dr. Norman of the University of California, San Diego.

Patients had a mean apnea-hypopnea index of 63 episodes per hour, indicating severe sleep apnea. The neuropsychological assessment battery included tests of speed of information processing, executive functioning, memory skills, verbal skills, and attention and working memory domains.

Caffeine intake was assessed using a detailed instrument that has been shown to characterize usual caffeine consumption based on 24-hour recall. Daily caffeine intake in cognitively impaired patients was one-sixth that of non-cognitively impaired patients (30 mg vs. 180 mg), Dr. Norman said. Previous findings that obstructive sleep apnea patients consume three times the caffeine of nonapneic individuals on a daily basis led to speculation that those with sleep apnea were self-medicating with caffeine to counteract daytime sleepiness. Caffeine has been shown to enhance cognition, and the findings of the current study suggest this is an additional effect experienced by those who use caffeine for that purpose.

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