

Urine Test May Identify Obstructive Sleep Apnea

BY TERRY RUDD

Proteins detectable in urine may offer a relatively simple screening target to identify children with obstructive sleep apnea, a study of 120 children suggests.

Dr. David Gozal of the University of Chicago and associates studied 90 children referred to a pediatric sleep medicine center in Louisville, Ky., for eval-

uation of habitual snoring and suspected sleep-disordered breathing. A total of 60 children met polysomnographic and clinical criteria for OSA, while 30 had primary snoring. The study also included as controls 30 children who didn't snore.

All children underwent overnight polysomnography, and urine samples were collected upon waking. Two-dimensional differential in-gel elec-

trophoresis was used to assess protein expression in urine (*Am. J. Respir. Crit. Care Med.* 2009;180:1253-61).

In children with obstructive sleep apnea, levels of 12 urinary proteins differed from those in children with primary snoring or in controls.

Three proteins increased in OSA—uromodulin, orosomucoid-1, and urocortin-3—and one protein decreased, kallikrein-1.

Abnormal levels of two or more of these four proteins predicted OSA with 100% sensitivity and 96.5% specificity. Abnormal levels of at least three of the proteins produced 95% sensitivity and 100% specificity.

Dr. Gozal serves on a Merck & Co. speakers bureau. Some of the other study researchers have received corporate funding to develop biomarker assays and to study pediatric sleep apnea. ■

It's never too early to have the "insulin talk"

Some conversations may be hard to initiate. Take the "insulin talk," for example. According to the American Diabetes Association, insulin is the most effective agent for lowering blood glucose.¹ It works as part of an overall diabetes treatment plan, which may include diet, exercise, and other diabetes medication. Having the "insulin talk" early may help patients accept insulin as a potential treatment option to help them achieve their A1C goals.²

The results of having a positive "insulin talk" can be impactful: in a survey, about 80% of patients with type 2 diabetes on OADs said they'd consider taking insulin if their doctor recommended it.³ So by starting the dialogue now, you can help your patients have a better understanding of insulin as an effective treatment option for lowering blood glucose.

Insulin—a chance for successful glycemic control, not a punishment for failure

Patients may focus on blaming themselves for their uncontrolled blood glucose, but you can help them focus on turning this negative mindset into positive action for managing their disease.² The United Kingdom Prospective Diabetes Study showed that by the time patients with type 2 diabetes are diagnosed, they may already have lost up to 50% of their beta-cell function, and this function may continue to decline.⁴

Because the disease is progressive, many patients with type 2 diabetes may eventually need insulin to achieve or maintain glycemic control.^{2,5} But by the time patients with type 2 diabetes are prescribed insulin, they may have had diabetes for 10 to 15 years and may already have complications due to a prolonged period of uncontrolled blood glucose.⁶ Starting insulin earlier in the disease continuum for appropriate patients can help improve glycemic control. Controlling blood glucose can reduce the risk of diabetes-related complications.^{5,6}

Treatment plans and glycemic targets should be individualized for each patient.

Insulin is indicated to help improve glycemic control in patients with diabetes mellitus.

Important Safety Information About Insulin

Possible side effects may include blood glucose levels that are too low, injection site reactions, and allergic reactions, including itching and rash. Other medications and supplements could change the way insulin works. Glucose monitoring is recommended for patients with diabetes.

THE "INSULIN TALK"

Have the talk early and as needed, to help destigmatize insulin²

- Reassure patients that using insulin doesn't mean failure and that insulin may help replace what the body is no longer adequately making
- Turn the negative mindset of failure into a positive opportunity to take personal control of A1C

Put insulin therapy in context

- Explain the benefits of maintaining blood glucose goals and the risks associated with insulin therapy
- Talk about how insulin may be worth the effort—insulin is an effective treatment option that works as part of an overall treatment plan to lower blood glucose

Identify patients' personal obstacles and help defuse the "scary" factor²

- Today's insulin injections generally cause little discomfort and are administered using small, thin needles^{2,6}
- Insulin pens make insulin more convenient to administer and are discreet²
- Insulin dose may need to be adjusted up or down over the course of treatment depending on how a patient's body responds⁵

INSULIN

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Asthma Tied to Increased Risk For Depression

MONTREAL — Primary care patients with asthma face a significantly increased risk of developing depression, compared with the nonasthmatic population, according to a longitudinal study.

Furthermore, the combination of asthma and depression carries significantly increased mortality, reported Dr. Paul Walters of the Institute of Psychiatry, King's College, London.

Taken together, the findings suggest that it may be useful for family physicians to consider screening their asthmatic patients for depression, he said at the annual meeting of the North American Primary Care Research Group.

In a previous study, Dr. Walters and his colleagues found that asthma was the third-largest predictor of antidepressant prescriptions in the United Kingdom (*Br. J. Psychiatry* 2008;193:235-9).

The current longitudinal cohort study, designed to explore the association between asthma and depression, identified 11,275 asthmatic patients with no history of depression and an equal number of control subjects, matched for age and sex from the United Kingdom's General Practice Research Database.

During a 10-year follow-up period, the incidence of depression was significantly higher in the group with asthma, compared with controls (22.4 versus 13.8 per 1,000 person-years); after adjustment for age, sex, chronic illness, and smoking, the odds ratio for depression among asthmatic patients remained elevated (1.5).

Looking next at the asthmatic patients only, the researchers noted those with comorbid depression had an elevated mortality ratio (1.87), compared with those with asthma alone.

"We don't have any information on cause of death, so we're not able to say if it was due to asthma-related reasons or depression-related reasons or a combination of both," he said.

The biggest difference between the groups was in their frequency of primary care visits (8.3 visits a year for depressed patients versus 5.3 for nondepressed patients).

Dr. Walters had no conflicts of interest to report.

—Kate Johnson