Hormones May Underlie Recalcitrant Obesity

BY SHERRY BOSCHERT
San Francisco Bureau

SAN DIEGO — A hormonal imbalance may be the reason that some obese patients fail to lose weight despite appropriate efforts to do so, Dr. Neil W. Hirschenbein said at a symposium on obesity sponsored by the American Society of Bariatric Physicians.

About 90% of people will lose weight if they eat a balanced, whole-foods diet, supplement that with nutrients as needed (vitamins, minerals, fish oils, etc.), engage in cross-training exercise, and maintain a healthy lifestyle. Perhaps 10% of overweight people will not lose weight even on this regimen, however, because of "damaged metabolisms," said Dr. Hirschenbein, an internist and gastroenterologist and medical director for the La Jolla (Calif.) Institute of Comprehensive Medicine.

He described some of the more common hormonal imbalances that contribute to recalcitrant obesity:

► **Hypothyroidism.** Undiagnosed hypothyroidism is a problem in many patients who seek help for obesity after being told by an endocrinologist that their thyroid-stimulating hormone (TSH) levels are just outside the normal range, but not to worry about it. If clinicians could improve their ability to combine clinical symptoms with near-normal TSH results, "we would find more hypothyroidism."

Getting lab tests to check for thyroid disorders is essential, he added. "I have lots of patients coming in to deal with their thyroid problems because their physicians have refused to even order the tests," he said.

► **Cortisol.** Stress-induced cortisol imbalance is a major factor in weight loss resistance, Dr. Hirschenbein said. He asks patients to rate their level of stress on a scale of 1-10, with 10 being the worst, and frequently they rate it a 12. "Having good stress can be as hard on your adrenal glands as bad stress," with stress hormones released by both crises and welcome events.

Stress releases the "fight or flight" hormones epinephrine and norepinephrine, which later return to normal levels, and the stress hormone cortisol, which can remain elevated for longer periods or even persistently with chronic stress. The effects

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DR. HIRSCHENBEIN

of cortisol stimulate appetite. High cortisol levels, which favor fat deposition and a higher set point for body fat, are associated with central obesity. Stress management techniques can help these patients.

► **Insulin resistance.** Both fasting insulin and fasting glucose levels should be measured in patients resistant to weight loss, he advised. Insulin resistance is associated with excess weight and metabolic syndrome.

"A patient may have a good sugar level but a very high insulin level. If all you're doing is looking at sugars, you'll miss some of these problems until later," he said.

► **Sleep deprivation.** Inadequate sleep may lead to the development of insulin resistance, and is associated with weight gain even in people with excellent diets who exercise regularly. In one study, when sleep was decreased from 8 hours to 4 hours each night, the resulting alterations in glucose metabolism in some cases resembled those of patients with type 2 diabetes, he said.

The results of another study found that people who sleep 2-4 hours per night are 73% more likely to be obese than normal sleepers who get 8-10 hours per night. Patients sleeping only 5 hours per night were 50% more likely to be obese than normal sleepers.

Lack of sleep increases levels of ghrelin, a hunger hormone, and decreases levels of leptin, a satiety hormone. The result: overeating and weight gain.

Dr. Hirschenbein advised asking patients very specific questions such as what time they go to bed, how quickly they fall asleep, how long they sleep, what time they wake up, and whether an alarm is needed to wake up.

He added that techniques such as keeping the room quiet, dark, and cool; limiting fluids before sleep; avoiding stimulating activities right before bedtime; and allowing enough sleep time might help patients obtain adequate rest. ■

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