Martin Miner, MD

The Art of Waist Management

Abstract: *Although given an ICD9 code for diagnosis, variability exists for the definition of metabolic syndrome. In fact, these definitions do not always define the same patient population. The author discusses the various definitions, their applicability to clinical practice, and the teachings of a national best-seller:* You: On a Diet: The Owner's Manual for Waist Management *by Roizen and Oz. He shares basic tenets and humor for clinical guidance of patients suffering from metabolic syndrome.*

Keywords: metabolic syndrome; waist management; lifestyle intervention

I read the article featured in this month's issue titled "Lifestyle Treatment of the Metabolic Syndrome" with great interest, and while I found Drs Janiszewski, Saunders, and Ross' definition of metabolic syndrome and its associated relationship to cardiovascular risk, type 2 diabetes, and overall mortality a bit simplistic, I strongly favor their conclusions and overall recommendations.

- An increase in physical activity levels and/or decrease in caloric restriction is associated with improvement in abdominal obesity or waist circumference.
- The ability of waist circumference to provide a proxy measure of visceral fat is important given that independent of subcutaneous abdominal fat, visceral fat is a strong predictor of dyslipidemia, insulin resistance, hypertension, cardiovascular disease, type 2 diabetes, and mortality.
- The magnitude of improvement in these variables is dependent on baseline variables, with greater improvements among those with the greatest reported metabolic disturbances.[1]

It is most interesting that this syndrome is given an ICD9 code when there is no universal definition of metabolic syndrome. I think back to a commentary written by Lorber in *Practical Diabetology* in 2005.[2] In it, he discussed the evolution of the term *metabolic syndrome* from *syndrome X*, as described by Dr Gerald Reaven in 1988 in his Banting Lecture, published in the journal *Diabetes*.[3] He noted that the latest American Heart Association/National Heart, Lung, and Blood Institute (AHA/NHLBI) joint guidelines[4] have tweaked the Adult Treatment Panel III guidelines to reflect evolving knowledge. Thus, the AHA/NHLBI guidelines state that metabolic syndrome can be identified as the presence of 3 or more of the following:

- waist circumference: men >40 in., women >35 in.;

> Lifestyle modification. . . will result in significant improvements in the major components in what is known by most clinicians today as metabolic syndrome.

Therefore, lifestyle modification, specifically moderate-intensity exercise for 30 to 60 minutes on most days of the week and moderate reduction in caloric intake (~500 kcal), will result in significant improvements in the major components in what is known by most clinicians today as metabolic syndrome (ICD9 code 277.7).

DOI: 10.1177/1559827607312204. From Swansea Family Practice Group, Swansea, Massachusetts. Address for correspondence: Martin Miner, MD, Swansea Family Practice Group, 479 Swansea Mall Drive, Swansea, MA 02777; e-mail: martin_miner@brown.edu.

- triglycerides: >150 mg/dL;
- reduced high-density lipoprotein (HDL) cholesterol: men <40 mg/dL, women <50 mg/dL;
- blood pressure >130 mm Hg systolic or >85 mm Hg diastolic or on medication; and
- fasting glucose >100 mg/dL.

Of course, these values differ from the World Health Organization criteria, which require the presence of type 2 diabetes or insulin resistance (assessed by clamp studies) and at least 2 of the following:

- waist-to-hip ratio: men >0.90, women >0.85;
- triglycerides ≥150 mg/dL and/or HDL <35 mg/dL (men) and <40 mg/dL (women);
- blood pressure ≥140/90 mm Hg; and
- microalbuminuria >20 mg/min or 30 mg/g creatinine.

Lorber pointed out that there is debate within the debate: should the blood pressure cutoff be systolic and diastolic or systolic or diastolic? Is the blood pressure to be seated or supine? One measurement or the mean of 2 or 3? How should the waist circumference be measured? The 2 definitions do not always define the same patients. Finally, the use of hard cutoff points implies a threshold effect for macrovascular risk, yet epidemiologic and interventional research has shown the fallacy of this theory for blood pressure, lipids, and glucose. In each case, there is a graded effect of changes in relative risk. Lorber concluded that treatment of the metabolic syndrome is no more than the treatment of its parts, and the whole is no greater than the sum of its parts. Different risk factors contribute different amounts of risk.

So what is a learned, compassionate clinician to do?

Every day, I see men and women with increased visceral fat, certain that they are time bombs of risk, not exercising, not dieting or limiting calories, not losing weight, and feeling most guilty. Many refuse to let my medical assistant weigh them for fear of the perceived embarrassment. Many cancel appointments. And I know that we have worked in tandem to set realistic goals both in regard to weight and exercise.

This became less stressful for me after my brother-in-law, a dedicated exercise enthusiast, suggested I read *You: On a Diet* written by Mehmet Oz, MD, and Michael Roizen, MD.[5] Normally, I disdain diet books and rarely read self-help books, not because I feel superior or not in need of help. Contrary, I could use any assistance to balance life, family, and work. However, this book clearly established a different tenor with its humor, simplicity, and self-deprecation. This book helped me change the way I think about food, health, and dieting, and in return, it helped me counsel those I see daily on the treadmill of primary care medicine. Some of its tenets are as follows.

1. Outsmart your brain: to stop your stomach from growling, use your head. No strict diets; it's too much like holding your breath underwater. Eventually, you automatically inhale and then you drown.

   - Eat a handful of walnuts, hazelnuts, or almonds about 30 minutes before a meal. (Stick with something that grows on a tree.)
   - Give yourself a break. If you accidentally inhale a crème brûlée, relax.
   - The hypothalamus contains a sort of hunger regulator called the satiety center, which registers not only desire for food but also the drivers of thirst, sleep, and sex. If you are hungry at work, try water first. If you are hungry at home, try making love.

2. Forget about your stomach; food is absorbed through the small intestine.

   - Eating fiber before 10 AM is easy and essential. Having a high-fiber breakfast will slow down the absorption and movement of food thorough the intestines. Go with a simple breakfast: high fiber (oatmeal, whole-grain cereal, whole-grain toast, a small fruit shake with a fiber supplement) or high protein (a 2- or 3-egg-white omelet). The main thing is to avoid embellishments. Black coffee or with a little skim milk. Skip the sugar and cream.
   - Recognize that the small intestine has moods. It contains as many neurons as the spinal column. It is like a second brain, containing 95% of the brain's serotonin. It is why we feel emotion in our guts, such as fear, anticipation, and love. A lack of serotonin can cause irritable bowel, just as low levels in the brain can cause depression.

3. You don't lose much weight while exercising. You lose weight while recovering from exercise.

   - Walk for 30 minutes each day. This rids the body of 300 calories of sugars it carries, forcing the body to start burning fat.
   - Stretch. You should be able to dangle your hands with your waist bent and easily touch your toes. Your palms should be able to touch the floor.
   - Work out an hour after eating. Your body shunts extra blood to your gut after you eat.
   - The exercises: they look like they are for seniors . . . no equipment, just your own body weight strengthening core muscles, shoulder, legs, and back.

Thus, I began to recommend this book to patients. It can be purchased used and is inexpensive. It reflects the simplicity and compassion of a healthy life, with a dressing of humor, self-reflection, and self-deprecation. I laugh every time I recommend it. It then does not matter who defines metabolic syndrome or whether blood pressure is measured while the patient is sitting or supine. When I see the gut, I think about the simplicity of life management and living healthy without dieting. AJLM

References

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