

# Pseudotumor Cerebri Rate Rises With Obesity

BY NANCY A. MELVILLE  
Contributing Writer

SCOTTSDALE, ARIZ. — The incidence of pseudotumor cerebri is rising among the obese, so physicians should keep this relatively uncommon condition in mind when obese patients present with symptoms resembling brain tumor or intracranial pressure, said Deborah Friedman, M.D., at the American Headache Society's 2004 Headache Symposium.

Pseudotumor cerebri is primarily seen in obese women of childbearing age, and although the condition affects only 1 in 100,000 people in the United States, the rate for obese women between the ages of 20 and 44 is about 19 per 100,000.

In areas with higher levels of obesity, however, pseudotumor cerebri is being seen more frequently.

In Mississippi, called the most overweight state in the nation because a quarter of its population is considered obese by BMI criteria, the incidence of pseudotumor cerebri in the overall population is double, at 2 per 100,000, and among obese women aged 20-44, the rate is about 25 per 100,000.

Large increases in pseudotumor cerebri incidence rates have also been noted in men in the region, said Dr. Friedman of the University of Rochester (New York).

The most common symptom, headache, occurs in about 90% of patients. Descriptions of the pain range from headache behind the eyes that feels like pressure to headache in the morning, said Dr. Friedman.

Visual symptoms, seen in about three-quarters of patients, are the second most common

symptom, and papilledema is also very common.

"Patients will often describe blurriness or say that if they bend over, their vision goes out for a few seconds when they straighten up again," Dr. Friedman said. "It's usually a sign that the optic nerve is swollen."

About 60% of patients also experience the third most common symptom of intracranial noises, usually described as a whooshing in the ear or the sound of their heartbeat in the ear.

In diagnosing the disease, imaging and mental status are typically normal, and a lumbar puncture should show increased cranial pressure with otherwise normal spinal fluid content.

Dr. Friedman underscored the need for a lumbar puncture.

"You have to do a spinal tap to make a diagnosis," she stressed. "It's disheartening how many people I see who come in without having a lumbar puncture."

There are no evidence-based guidelines for treating pseudotumor cerebri, and not all patients even require treatment.

However, with the possibility of vision loss, the most important goal of treatment should be to preserve a patient's vision, Dr. Friedman said.

An ophthalmologist needs to be brought in for such cases, but it's essential that the physicians collaborate on care.

"Most of the time, there's no captain of the ship in management, and the doctors aren't working as a team," said Dr. Friedman, adding that an ophthalmologist and a neurologist should both follow the patient and communicate about management. ■

# In Uncomplicated Obesity Aortic Elasticity is Lowered

BY BRUCE JANCIN  
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NEW ORLEANS — Obese individuals with no other complicating diseases have an abnormally stiff aorta, predisposing them to heart failure and other cardiovascular diseases, Monique Robinson, M.B., said at the annual scientific sessions of the American Heart Association.

"The take-home message is this: Being just overweight or obese is not OK. I think in primary care practice, our focus has been on the comorbidities associated with obesity.

We treat you if you're diabetic. We treat you if you've got hypertension. We also need to treat our obese people who are just obese, because our results suggest that there may be an increased cardiovascular risk for these patients," said Dr. Robinson, a cardiovascular research fellow at the University of Oxford, England.

Using MRI, she investigated the mechanical elastic functioning of the aorta in 27 obese subjects with a mean body mass index of 34 kg/m<sup>2</sup> without diabetes, hypercholesterolemia, or hypertension, and in 12 normal-weight controls.

Mean aortic distensibility was reduced by 59% in obese subjects, compared with normal-weight subjects. Mean aortic compliance was

40% less, as well. An aortic stiffness index was also markedly increased in the obese subjects.

"What this means is, the aorta in obese subjects was less able to expand and contract to deal with high-velocity blood flow from the left main pumping chamber, as compared with the normal controls," she explained.

Multiple linear regression analysis showed that fat mass, body



**'The aorta in obese subjects was less able to expand and contract to deal with high-velocity blood flow.'**

DR. ROBINSON

mass index, leptin, and HDL cholesterol were all robust predictors of aortic elastic function in obese individuals.

Dr. Robinson and her Oxford coinvestigators are focusing on leptin, a hormone produced by fat cells, as the most likely chief mechanism by which obesity results in increased aortic stiffness.

Hyperleptinemia is a hallmark of obesity, and leptin has previously been shown to stimulate increased levels of tumor necrosis factor-alpha and other cytokines that can increase vascular tone and thereby reduce elasticity. ■

## CLINICAL CAPSULES

### Obesity and Risk of Kidney Stones

Obesity and weight gain may increase the risk of kidney stone formation, especially in women, reported Eric N. Taylor, M.D., of Brigham and Women's Hospital, Harvard Medical School, Boston.

He and his associates prospectively studied three cohorts: the Health Professionals Follow-Up Study (45,988 men, age 40-75 years at baseline), the Nurses' Health Study (NHS) I (93,758 older women, age 30-55 years at baseline), and the Nurses' Health Study (NHS) II (101,877 younger women, age 25-42 years at baseline). Over a combined 2.8 million person-years of follow-up, the incidence of new symptomatic kidney stones was 4,827.

After adjustment for age, dietary factors, fluid intake, and thiazide use, the relative risk of kidney stone formation in men weighing more than 220 pounds was 1.44, compared with men weighing less than 150 pounds. When comparing the same weight categories, the relative risk was 1.89 in NHS I (older women) and 1.92 in NHS II (younger women), the researchers said (JAMA 2005;293:455-62).

For men who gained more than 35 pounds after age 21, the relative risk for stone formation was 1.39, compared with men whose weight did not change. For

women who gained more than 35 pounds after age 18, versus those whose weight held steady, the relative risk was 1.70 in NHS I and 1.82 in NHS II.

Body mass index (BMI) also was a factor. In men, the relative risk of stone formation was 1.33 with a BMI of 30 kg/m<sup>2</sup> or higher, compared with men who had a BMI of 21-22.9 kg/m<sup>2</sup>. For women, the same BMI categories were associated with a relative risk of 1.90 in NHS I and 2.09 in NHS II.

For men with a waist circumference greater than 43 inches, the relative risk was 1.48, compared with those whose waist circumference was less than 34 inches. The relative risk for women with a waist circumference greater than 40 inches versus women with a waist circumference less than 31 inches was 1.71 in the older women and 1.94 in the younger women.

### Diets and Cardiac Risk Factors

Four popular diets all appear to reduce body weight and several cardiac risk factors at 1 year, but the benefits are modest, apparently because of low adherence, said Michael L. Dansinger, M.D., of Tufts-New England Medical Center, Boston.

In a single-center, randomized trial of adults with a mean BMI of 35 kg/m<sup>2</sup> and

at least one metabolic cardiac risk factor, 160 patients were evenly divided among the diets: Atkins (carbohydrate restriction), Zone (macronutrient balance), Weight Watchers (calorie restriction), or Ornish (fat restriction). For the first 2 months, patients were told to make a maximum effort to adhere to the diet. At 2 months, 21% had dropped out; the percentage rose to 38% at 6 months and 42% at 1 year (JAMA 2005;293:43-53).

In the primary intent-to-treat analysis, mean weight loss at 1 year was 4.8 pounds for Atkins (52% completed the study), 6 pounds for Zone (65% completed), 4.9 pounds for Weight Watchers (65% completed), and 7.3 pounds for Ornish (50% completed). There was no significant difference between diets.

All four diets modestly reduced mean LDL-cholesterol levels at 1 year, except for Atkins. All diets significantly increased mean HDL-cholesterol levels, except for Ornish. The LDL/HDL ratio fell about 10% at 1 year. There were no effects on triglycerides, blood pressure, or fasting glucose.

"Poor sustainability and adherence rates resulted in modest weight loss and cardiac risk factor reductions," the researchers said.

### Protecting Bone During Dieting

Even modest weight loss from exercise training is associated with a reduction in bone mineral density (BMD), particularly

in women who are not taking raloxifene or hormone therapy (HT), reported Wendolyn S. Gozansky, M.D., of the University of Colorado, Denver.

In a 6-month, randomized double-blind, placebo-controlled study of postmenopausal, sedentary, overweight women aged 50-70 years, 68 participated in a supervised exercise training program of moderate intensity and 26 control subjects did not participate. Both groups were separately randomized to one of three treatment groups: placebo, raloxifene, or HT (J. Clin. Endocrinol. Metab. 2005;90:52-9).

Women in the control group had a mean weight gain of 0.8 kg; those in the intervention group had a mean loss of 4.1 kg.

In the control group, the average percent change in BMD across all measured skeletal sites was a 0.6% reduction in placebo users (n = 7), a 0.9% gain in raloxifene users (n = 9), and a 3.0% gain in HT users. In the intervention group, BMD declined 1.5% in the placebo group (n = 22), fell 0.5% in the raloxifene group (n = 23), and rose 1.1% in the HT group (n = 23).

"Being overweight does not necessarily confer protection against low BMD in postmenopausal women," the researchers said.

—Kevin Foley