

Metabolic syndrome linked to women's cognitive impairment risk

Older women with the metabolic syndrome – a constellation of health-risk factors – had a 66 percent increase in risk of developing cognitive impairment compared with women who did not have the syndrome, according to a large study of post-menopausal women led by researchers at the [San Francisco VA Medical Center](#) and the [University of California, San Francisco](#).

The [study, which appears in the March, 2009 issue of “Archives of Neurology,”](#) showed that every additional symptom added 23 percent greater risk of cognitive impairment.

Metabolic syndrome is defined by the presence of three or more of five symptoms: abdominal obesity, elevated blood triglycerides (fatty acids), reduced HDL or “good” cholesterol, elevated blood pressure, and type 2 diabetes.

The results mean that it is “vital for physicians to be aware of the increased risk of cognitive impairment in patients with the metabolic syndrome,” according to lead author [Kristine Yaffe, MD, chief of geriatric psychiatry at SFVAMC](#).

“What is also significant is that, except for high blood glucose, no one individual symptom was associated with a higher risk of cognitive impairment in these women. It was the presence of three or more symptoms, all adding up to the metabolic syndrome, that indicated risk,” observes co-author Andrea Weston, MPH, a researcher in psychiatry at SFVAMC and UCSF.

“This means that it is important for older patients with the metabolic syndrome to be screened early for cognitive impairment, and that the component symptoms of the syndrome should be treated early,” says Yaffe, who is also a professor of psychiatry, neurology, and epidemiology and biostatistics at UCSF. “This is especially critical in light of the fact that almost 45 percent of American adults between 60 and 70 have the metabolic syndrome.”

The 4,895 study participants were enrollees in the Multiple Outcomes of Raloxifene Evaluation trial, which examined the effect of the osteoporosis drug raloxifene on the risk of vertebral fractures in women at 180 clinical centers in 25 countries. They were tested for cognitive function at the beginning of the study and at four years. None were cognitively impaired at the beginning.

Of the 497 women with the metabolic syndrome, 7.2 percent developed cognitive impairment; of the 4,398 women without the syndrome, 4.1 percent developed cognitive impairment. After adjusting for age, the researchers determined that the metabolic syndrome was associated with a 66 percent greater risk of cognitive impairment.

“On the positive side, all of the symptoms of the syndrome are manageable and in some cases reversible,” notes Yaffe. “However, more studies are needed to determine if close management will actually reduce the risk of cognitive impairment and dementia in these elders.”

Other co-authors of the study are Terri Blackwell, MA, of the California Pacific Medical Center Research Institute, San Francisco, Calif., and Kathryn A. Kruger, MD, of Lilly Research Laboratories, Indianapolis, Ind.

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SFVAMC has the largest medical research program in the national VA system, with more than 200 research scientists, all of whom are faculty members at UCSF. UCSF is a leading university dedicated to promoting health worldwide through advanced biomedical research, graduate-level education in the life sciences and health professions, and excellence in patient care.