Stroke Risk Rises With Dietary Fat and Sodium

In two studies, ischemic stroke incidence was 60% higher in those consuming over 65 g of fat daily.

BY MITCHEL L. ZOLER
Philadelphia Bureau

NEW ORLEANS — For the first time, in two studies, ischemic stroke incidence was 60% higher in people who consumed more than 65 g of fat daily, compared with those who ate 65 g or less daily, reported Haila White, a researcher at Columbia. This analysis controlled for a variety of demographic, clinical, and dietary variables, including age, gender, race, physical activity, body mass index, serum cholesterol, stroke incidence, and the number of fruits and vegetables in the diet. When also adjusted for total calorie intake, the increased risk of stroke linked with a high-fat diet rose to 90.

“These are reasonable hazard rates that are close to the increased risk for stroke in patients with hypertension,” said Dr. Sacco, who is also director of stroke and clinical care at Columbia.

He speculated that atherosclerosis may be the mechanistic link between high dietary fat and stroke. High-fat diets usually lead to increased serum levels of total cholesterol and LDL cholesterol, he said.

The sodium analysis divided the study group into three groups: those with an average, daily sodium intake of 4 g or more per day, those with a daily intake of 2.4 g or less per day, and those who ate between 2.4 and 4 g per day. In an analysis that controlled for age, gender, race, hypertension, heart disease, diabetes, smoking, body mass index, physical activity, alcohol intake, and other variables, people who ate 4 g or more per day had an 84% higher risk of ischemic stroke compared with people who consumed 2.4 g or less per day, reported Armstead D. Williams III, M.D., a neurologist at Columbia.

People who ate between 2.4 and 4 g per day had a slightly increased risk of stroke, compared with those with the lowest intake level, but the difference was not statistically significant. Because the analysis controlled for differences in blood pressure, it’s possible that some other, unknown biologic mechanism explains the link between dietary fat and stroke risk. But blood pressure may still play a role, Dr. Sacco said at the conference, sponsored by the American Stroke Association.

“We controlled for differences in blood pressure, but there might have still been small differences in blood pressure that we couldn’t detect. We can’t exclude a blood pressure effect,” he said.

Case of Treatable Autoimmunity Initially Diagnosed as Dementia

BY KERRI WACHTER
Senior Writer

BUDAPEST, HUNGARY — Autoimmune stratal dysfunction may be the underlying cause of dementia-like presentations, in rare cases.

This was the case for a 48-year-old woman, who presented with a 1-year history of progressive difficulties with attention and memory, said Gabriel C. Léger, M.D., speaking at the 4th International Congress on Autoimmunity.

Her husband complained that there had been a profound change in her personality. In particular, he found her to have become uninterested and exhaustingly hypersexual. She had progressive difficulties functioning at home and at work—finally losing her job. Her medical history included an episode of self-limiting, ballistic-like movements of the right side of her body during her early 20s. Exhaustive testing turned up no cause. The condition resolved spontaneously after a few months. She had no history of rheumatic fever or childhood chorea. However, at the age of 17 years her mother had Sydenham’s chorea, which lasted about 1 year.

Cognitive testing also revealed attention and memory (acquisition) deficits. In addition, the patient displayed frontal network dysfunction, which psychologic testing confirmed.

Her physical exam was unremarkable, except for some mild psychomotor activity of the right hand and right side of the face. The usual battery of tests was unrevealing, as were infectious and autoimmune serologies, said Dr. Léger, a neuropsychologist at the University of Montreal.

The clinicians initially diagnosed frontotemporal dementia but “the presence of a very mild focal examination bothered us just a little bit,” said Dr. Léger. An FDG-PET scan revealed a dramatic increase in metabolism in the left striatum—70% more metabolic activity than in the right striatum.

Hypermetabolic lesions have traditionally been associated with diseases of autoimmunity, Dr. Léger noted. They treated her with a 3-day course of pulsed methylprednisolone sodium succinate, followed by a 2-week prednisone taper.

Within weeks, she noted a resolution of her attention deficits. FDG-PET imaging demonstrated a fairly substantial resolution of the asymmetry of the striatum.

Based on the suspicion that autoimmunity against the basal ganglia was involved, the researchers initiated posttherapy plasma exchange to the laboratory for analysis.

Higher titters of antibodies to the striatum—the antibodies found in Sydenham’s chorea—were found in the pretreatment sample but not in the posttreatment sample and reduced titters were found in the posttreatment sample.

Unlike this case, previous studies involving hypermetabolic lesions have also involved previously diagnosed disorders, such as Sydenham’s chorea, Dr. Léger said.

Deep Brain Stimulation May Control Severe Seizures

SAN FRANCISCO — Deep brain stimulation of the anterior thalamic nuclei shows promise in the management of epileptic seizures, judging from the findings of a small pilot study, Robert Fisher, M.D., said at the annual meeting of the Congress of Neurological Surgeons.

If further research results confirm the procedure’s initial promise, deep brain stimulation could become one of a group of targeted therapies, he said.

That group of therapies includes radiation and local drug perfusion, which control severe epileptic seizures, said Dr. Fisher, who is professor of neurology at Stanford (Calif.) University.

The study population consisted of seven men and seven women, 19-44 years old, with partial and apparently generalized tonic-clonic seizures originating in the temporofrontal lobes and from multifocal regions. Two of the patients had left hemisphere lesions.

Improvement was especially dramatic in four of five patients whose seizures were severe enough to make them fall down.

There was no control group in the study. However, these findings compare favorably with data that come from controlled clinical trials that involved gabapentin and lamotrigine in which responder rates were only 15%-20% among patients who were taking the drugs, Dr. Fisher pointed out.

One concern about deep brain stimulation is that it may inhibit neurologic activity at seizure foci but stimulate activity in surrounding areas of the brain.

“We will have to watch for that as we move forward,” he said.

A controlled, multicenter trial is now underway.

—Norra MacReady

Lights Out