



PRESS RELEASE

**WCMC-Q Physician Explains Stroke, Major Cause
of Disability Around the World**

Doha, December 9, 2009 – The World Health Organization says stroke is a leading cause of disability around the world, and it’s a condition that evades notice until it’s upon you, said Dr. Leopold Streletz, associate professor of neurology at WCMC-Q, who yesterday gave a public lecture entitled “Strokes of Insight.”

“One minute, you are normal. The next minute, you are paralyzed or numb on one side of your face or body, you cannot speak or have difficulty walking or any combination of these symptoms,” Dr. Streletz said.

Of those who experience a stroke, about 50 percent will make a partial recovery and may live the rest of their lives with significant neurological problems that affect their movement and speech, he continued.

How Strokes Happen

His lecture began with a brief introduction to the history of stroke research indicating its contribution to the understanding of brain function and went on to explore the various types of strokes and their causes.

There are two types of stroke—hemorrhagic, caused when arteries that serve the brain become weak and rupture; and ischemic, caused by blockages in arteries serving the brain. Hemorrhagic strokes are usually caused by untreated high blood pressure against weak vessel walls in the brain, Dr. Streletz said. But these are less common than ischemic strokes, which account for 80 percent of all incidents.

The most common cause of ischemic strokes is hardening of the arteries or what the medical community terms atherosclerosis, Dr. Streletz said. This situation results in narrowing of the arteries, which leads to clot formation.

“It’s important to note that 50 percent of all strokes are caused by hardening of the arteries and many of these can be prevented,” Dr. Streletz said. “About 30 percent of strokes are caused directly by heart problems, where blood clots form on the valve

surface or in a chamber of the organ and break loose, travelling to the brain and blocking blood flow there.”

When the arteries serving the brain become blocked, the cells affected die within minutes and cannot be replaced. The result is a loss of function in the part of the nervous system associated with the place in the brain where the stroke occurred—usually producing paralysis, loss of feeling, problems with speech, loss of vision or difficulty walking.

Causes

Hardening and narrowing of the arteries happens naturally as we age, Dr. Streletz explained, but it’s accelerated by habits and medical conditions such as high blood pressure, smoking, high cholesterol levels, obesity and lack of exercise.

“High blood pressure is the biggest risk factor for heart attacks and stroke,” Dr. Streletz said, “but you can’t know what your blood pressure is unless it is measured by a doctor or nurse so it is often termed ‘the silent killer.’”

Dr. Streletz urged everyone in the audience to have their blood pressure measured to make sure the numbers are below 140/90. Anything above that for either number signals a need for the patient to start a blood pressure reduction program.

Additionally, diabetes affects one out of every four people in the region over the age of 65, Dr. Streletz said, and one out of every 10 people older than 75 has a heart problem known as atrial fibrillation, which is the most common cardiac cause of stroke. In addition, he said that high cholesterol levels increase hardening of the arteries throughout the body.

“An examination by your doctor and a simple blood test can reveal any of these conditions that are major causes of stroke,” Dr. Streletz said. “If you have any of these conditions, it’s important to listen to your doctor’s advice and see them regularly to ensure that these conditions are treated and properly controlled.”

Warning Signs and Symptoms

Major warning signs of a stroke include:

- Sudden numbness or weakness of the face, arm, or leg, especially on one side of the body
- Sudden confusion or difficulty speaking or understanding

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- Sudden trouble with vision in one or both eyes
- Sudden onset of the worst headache of your life

Dr. Streletz said that these symptoms might linger or they may last for only a brief time, in which case they are part of a transient ischemia attack or TIA. Caused by the same process that produces most strokes, TIAs block arteries in the brain and are a critical warning sign that you could be headed for a larger stroke.

If you or your family experience symptoms of a TIA or stroke, do not wait for them to go away. Go immediately to the nearest hospital. Treatment is available to help break up the clots in the brain. Yet if they are left untreated, the irreplaceable and critical cells of the brain may die. As Dr. Streletz said, “time is brain.”

Evaluation and Treatment

Proper evaluation usually requires immediate hospitalization. After a thorough medical examination—including an EKG, CT scan of the head and basic clinical laboratory blood tests—the treatment focuses on either relieving the blood clot or arterial block that caused the ischemic stroke, or on stopping the bleeding of the hemorrhagic stroke. In some cases new clot-busting drugs may be used, in others carotid surgery or other intracranial surgery may be in order.

Prevention

Even if you do not have any of these troubling health conditions, it’s important to note that a number of health and lifestyle factors can increase the risk for stroke, Dr. Streletz said. Smoking, for one, is a major cause of heart attacks and strokes.

“If you smoke, stop,” he said. “Inhaled smoke kills the cells that line your blood vessels and greatly increases hardening of the arteries and formation of blood clots—a 50 year-old man who has smoked for 20 years can expect to have the arteries of a 70 year-old man who does not smoke.”

In addition, Dr. Streletz cited excess weight as a huge health risk. Being overweight can put one at high risk for developing Type 2 diabetes, hypertension and hypercholesterolemia, all of which increase stroke risk tremendously.

“You can potentially take charge of your weight and reduce it by adopting a healthy lifestyle,” Dr. Streletz said. “If you shift to a healthy diet—low in fats and high in fiber and vegetables—as well as 30 to 40 minutes of exercise four times a week, you are on track to reducing your risk for stroke.”

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NOTES TO EDITORS

Established in partnership with Qatar Foundation, WCMC-Q is part of Weill Cornell Medical College of Cornell University, the first US institution to offer its MD degree overseas. WCMC-Q shares the triple mission of Weill Cornell Medical College: a dedication to excellence in education, patient care, and biomedical research.

WCMC-Q offers an innovative educational program that includes a two-year Pre-medical Program followed by a four-year Medical Program with teaching by Cornell faculty. Each program has a separate admission process guided by the standards of admission in use at Cornell University in Ithaca and its Medical College in New York City.

Faculty and staff of WCMC-Q and Weill Cornell in New York City are building the research capacity of Qatar in partnership with Qatar Foundation, Sidra Medical and Research Center, Hamad Medical Corporation, the Ministry of Health and other organizations. WCMC-Q's program focuses on high quality research in genetic and molecular medicine, women's and children's health, gene therapy, and vaccine development.

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