

Stroke: Not just a disease of the old



By Lois Thornton

When Lillian Michaels woke that morning she knew immediately that something was wrong. The vision in her left eye was blurred and she had the sensation that she was looking down a tunnel.

Weakness in her left arm and leg made it difficult for her to get out of bed. She opened her mouth to call her husband but no sound came from her mouth. Lillian had experienced a cerebrovascular accident (CVA), more commonly called a stroke. She would spend the next several months in treatment and rehabilitation learning to overcome the resulting impairments.

Lillian was fortunate; she was left with some residual disability. Thousands of stroke sufferers around the world are not so lucky. Stroke is the third leading cause of death in the United States and the leading cause of serious long-term disability. In Canada, where 40-50,000 strokes occur every year, about a third results in death.

Europe averages approximately 650,000 stroke deaths per year. According to the World Health Organisation (WHO), 15mn people suffer stroke worldwide each year. Of these, 5mn die and another 5mn are permanently disabled. Even more alarming, it is estimated that by 2020, stroke mortality will have almost doubled worldwide as a result of the ageing population and the future effects of current smoking patterns particularly in less developed countries.

Nor are stroke occurrences restricted to the elderly. Close to a quarter of all strokes happen to people less than 65 years of age. In the US, the average age of stroke patients decreased significantly between 2005 and 2009. The Canadian Heart and Stroke Foundation estimates that for every 10,000 Canadian children under the age of 19 years, there are 6.7 strokes.

The financial and social costs of stroke, as well, are enormous. In Canada, 40% of stroke victims are left with moderate to severe impairment and 10% are so severely disabled that they require long-term care. It is estimated that stroke costs the Canadian economy \$2.7bn annually. Stroke statistics from the UK identify stroke as having a greater disability impact than any other chronic disease, as well as causing a greater range of disabilities. In England, at least 450,000 people are severely disabled as a result of stroke.

Enough is known about stroke, its risk factors, prevention and effective treatments that these statistics should not be so overwhelming. While many research dollars are spent in perfecting high tech treatment modalities and surgical procedures, researchers already know how to recognise those at risk for stroke and what preventive measures will cut those risks. By understanding what stroke is, and learning to recognise and manage your risk factors, you can keep from becoming a statistic.

A stroke or CVA is a sudden loss of brain function as a result of disruption of blood flow to the brain and the consequent damage to brain tissue. Most strokes occur in one of two ways. The most prevalent cause is the narrowing and closure of a blood vessel in the brain by the build up of fatty plaques, or by a blood clot.

Less frequently, a sclerotic blood vessel will rupture allowing blood to haemorrhage into the brain tissues. In younger people, acquired or congenital defects in the heart or blood vessels may be the source of the clot or the haemorrhage. For older people, blood vessel disease usually happens gradually with years of high fat dietary intake, lack of exercise, and smoking.

The effects of stroke can be far-reaching depending on which part of the brain is damaged, and how much damage has occurred. Most frequently, people who have had a stroke experience weakness or paralysis of one side of their body (hemiplegia), including drooping of facial muscles on the same side.

Vision changes, inability to understand the spoken or written word, inability to communicate verbally or in writing, memory difficulties, and decreased capacity to reason are also common disabilities associated with stroke. In some cases, particularly if treatment is prompt and effective, the effects of the stroke can be reversed, or at least diminished.

The brain is also quite adept at compensating for loss of function and, with an adequate period of rehabilitative treatment, many stroke survivors can learn to adapt to and overcome their disability. Unfortunately if you have had a stroke or a transient ischemic attack (TIA) you are at risk of another episode.

A transient ischemic attack or TIA is sometimes known as a mini-stroke. The symptoms are the same as the symptoms of a stroke but they last for only a few minutes to a few hours. TIA is a serious warning sign that there is something wrong with the blood supply to the brain and should be treated as a medical emergency. Having a TIA increases your risk for a full blown stroke for the immediate period after the TIA up to a year following. TIA increases your risk for stroke but it also provides a warning and can give you the opportunity to decrease your risk.

Like all vascular disease, stroke is accompanied by risk factors that you can control as well as those you cannot. Uncontrollable risk factors include age, gender, a close family history of stroke, ethnicity, and prior stroke or TIA. As you get older, your risk for stroke increases.

Men over the age of 55 and postmenopausal women are at greater risk. Those of African and South Asian descent are more likely to have diabetes and hypertension and so

are also at higher risk of stroke than the Caucasian population.

Fortunately there are factors that you can control. Stroke risk increases with high blood pressure, high cholesterol levels, diabetes, smoking, overweight, excessive alcohol intake, physical inactivity and stress. Managing and reducing these factors is the most direct path to reducing your chance of stroke.

High blood pressure is the most important controllable risk factor, so have your blood pressure checked regularly. Eat a diet low in sodium and fat. Decrease the amount of animal fat (saturated fat) in your diet and increase the healthy unsaturated fats such as olive, canol and fish oil. Increase your fibre intake by eating 5-9 servings of fruits and vegetables per day, as well as whole grain breads and cereals.

If you have already been diagnosed with high blood pressure, take your treatment seriously. Your medication should be taken as prescribed. Never stop blood pressure medication without consulting your doctor. You need to be aware, also, that many common over-the-counter medications, such as antihistamines, can increase your blood pressure, so tell your doctor and pharmacist about any medications you are taking before starting something new.

Smoking leads to hardening of the arteries, increased blood pressure and increased risk of stroke. Getting rid of a smoking habit may be the most important thing that you can do for your overall health, as well as decreasing your risk of stroke. Cigarette addiction can be a difficult thing to beat, but there are many effective programmes for smoking cessation. Ask your health care provider for assistance.

A healthy diet, an active life style, maintaining an optimum body weight, and avoiding smoking – it is always the same old mantra! It cannot be said enough that healthy life habits decrease the risk of all types of diseases, including hypertension, diabetes and stroke.

For those at risk for stroke, an ounce of prevention is certainly worth a pound of cure. Fortunately, early treatment of stroke symptoms can effectively minimise the effects.

Recognising the warning signs of stroke and seeking immediate care can prevent the devastating disability that stroke can cause. If you experience sudden severe headache, unsteadiness or a sudden fall, sudden loss of vision or double vision, temporary loss of speech, difficulty understanding speech, or sudden weakness, numbness or tingling of the face, arm or leg you may be experiencing a stroke.

Call 999 or get to the closest emergency room immediately. Prompt treatment could save your life or years of disability.

Visit the Canadian Heart and Stroke Foundation website (www.heartandstroke.ca) and take their Heart and Stroke Risk Assessment to get your personal risk profile. Their publication, *Taking Control: Lower Your Risk of Heart Disease and Stroke* is full of ideas on how you can lower your vascular risk.

(Lois Thornton is a Nursing Instructor at University of Calgary, Qatar. Her research interests include gerontology, dementia care and spirituality in nursing.)

