

Botox: Finding Positives in the Negative

For Nancy Langdon, July 14th, 2008 started out like any other ordinary day. Nancy was with her husband, Peter, in their Smiths Falls home when Peter noticed something was wrong. Nancy was struggling to open a DVD case and her behaviour was slightly different; she seemed to be having difficulty with her coordination, and her speech sounded slower. He immediately suspected that Nancy was having a stroke.

One of Nancy's sisters who lived nearby quickly came over and noticed that the left side of Nancy's face seemed to be drooping. The paramedics were called and confirmed that Nancy had indeed suffered a minor stroke. She was taken to the hospital immediately and admitted into the intensive care unit. On her second night in the ICU, Nancy suffered a second, much more serious stroke that would change her life.

Following the devastating blow of the second stroke, Nancy was referred to Dr. Kathrine Stolee, a stroke rehabilitation specialist working at the Perth and Smiths Falls District Hospital. Dr. Stolee suggested that Nancy move to the rehabilitation floor in the hospital, where she would begin an intensive multidisciplinary rehabilitation program to maximize her chances of an early recovery. Because she could not live independently, Nancy moved to the Broadview Nursing Centre, a long-term care facility, where she would fortunately be able to continue a focused therapy program to work towards her goals of independence and mobility.

Nancy had a temporary interruption in her recovery. She experienced a transient ischemic attack, which affected the right side of her body. To prevent a more serious stroke, Nancy underwent a successful surgery to unblock the blood vessel supplying blood to the brain. Fortunately, there was no permanent right-sided damage. As Nancy initially began to regain sensation in her arm and leg, she also began experiencing the painful effects of post-stroke spasticity, one of the most physically debilitating consequences of a stroke, involving uncontrolled muscle tightness, which in Nancy's case affected her left arm and leg.

To treat her spasticity, Dr. Stolee suggested that Nancy undergo BOTOX[®] injections. "I'd never heard of Botox being used for anything beyond cosmetic purposes. But Dr. Stolee let me know that it would make my arm and leg more flexible, which it did."

BOTOX[®] (botulinum toxin type A) was approved by Health Canada for the treatment of focal spasticity, including the treatment of upper limb spasticity associated with stroke in adults in 2001.¹ It can help reduce stiffness, muscle spasms and other symptoms that reduce disability and promote increased functioning.²

Nancy had a series of BOTOX[®] injections in her affected arm and leg. She recalls that after about a month, she began to feel some relief from the painful muscle tightness she had been experiencing, which allowed her greater mobility as she performed the difficult exercises demanded by her physiotherapy. She continues to receive BOTOX[®] injections to her spastic muscle every 12 weeks to relieve the tightness.

Today, Nancy is able to walk short distances with a quad cane – no small feat considering that her doctors weren't sure if she would survive the first days following her devastating second stroke. But getting to this point hasn't been easy, and Nancy stresses that she has worked hard to get where she is today. For Nancy, the recovery has been both emotional and physical, with darker times that Nancy won't soon forget.

She attributes her progress to a "mind-over-matter" attitude, as well as the commitment and dedication of her sisters, who have been by her side all along. They help Nancy by taking care of her laundry; and taking her out, whether it is to wheel her around the grounds, or take her for picnics.

Nancy also counts herself as very fortunate to be in a long-term facility where there is a permanent physiotherapist on site and attributes much of her physical progress to the help of physiotherapy assistant, Dennis Thomson of Brockville, who comes to the Broadview Nursing Centre every day. Nancy also meets with Dr. Stolee every two or three months to track her progress and make any necessary changes in medication.

As for her advice to others dealing with stroke, Nancy stresses that persistence is key. “Keep plugging away; don’t let it get you down. Get your mind made up that you’re going to overcome it.”

Patients should speak to a physician to fully understand their treatment options for spasticity management and to discuss the safety and risk-benefit profile for each. Patients should also keep in mind that individual treatment results may vary.

¹ BOTOX® Canadian Product Monograph. Allergan Canada. 2008.

² Esquenazi A. Botulinum neurotoxins in the management of spasticity. Neurotoxin Institute. Available at <http://www.neurotoxininstitute.com>. Accessed on January 2010.

Federal Drug Admin USA 2010 Release: FDA Approves Botox to Treat Spasticity in Flexor Muscles of the Elbow, Wrist and Fingers March 2010. However, . . .

Botox has not been shown to be safe and effective treatment for other upper limb muscles, spasticity in the legs, or for treatment of fixed contracture – a condition that affects range of motion. Treatment with Botox is not intended to substitute for physical therapy or other rehabilitative care.

Botox is manufactured by Allergan Inc. of Irvine, Calif. FDA Press Release, USA 2010 <http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm203776.htm>

<http://www.botoxfacts.ca/>

! - In 2001, when Health Canada approved botulinum toxin type A for the treatment of frown lines, Botox® suddenly became a household name. While you may know that the drug is great for smoothing out those wrinkles between your eyes, you may not know that it has been licensed in Canada since 1990 as a safe and effective treatment for a number of disorders caused by overactive muscles.

A surge in research and clinical studies has confirmed the emergence of new cosmetic and therapeutic areas in which the drug might show benefit—some you may already suspect, but some you may never have imagined.

Spasticity

<http://www.botoxfacts.ca/sideEffects.html>. In November 2001, Health Canada approved Botox® injections to reduce spasticity that can occur after a stroke, when muscles no longer respond to signals from the central nervous system telling them to relax, and they remain contracted instead. Examples of post-stroke spasticity include a clenched fist, flexed wrist, bent elbow, or arm pressed against the chest.

Botox® relaxes the affected muscles, reducing spasticity and helping patients function more normally, with improvements in hygiene, dressing, and pain. The safety and efficacy of the injections in the treatment of wrist and finger spasticity after stroke were examined in a large study of 126 patients. Botox® was better than placebo (non-drug injections) in improving wrist and finger muscle tone and reducing disability in daily life for at least 3 months following one treatment. Side effects were mild and included pain at the injection site, headache, dizziness, and muscle weakness (Brashear 2002).