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## Research Spotlight

A Face Lift for Botox?

By *Laurel Tielis*,  
Infoaging Correspondent

As a wrinkle remover, Botox is commonly viewed as a vanity product used by baby boomers and others not content to age naturally. Now, Botox- Botulinum Toxin Type A- is being used to treat a range of neurological diseases. At a recent media briefing hosted by the American Medical Association, distinguished doctors from a variety of disciplines described the benefits of Botox for brain disorders ranging from migraines to Parkinson's disease to cerebral palsy and dystonia (neurological movement disorders).

These physicians reported that Botox offers many advantages over other treatments for these conditions. It works only where injected, rather than throughout the body as medication does; and, if correctly injected, it doesn't paralyze muscles, but only weakens them. In addition, effects are relatively long-lasting, but wear off after three to four months so mistakes can be reversed. One disadvantage is that patients must return for injections three to four times a year. Even more serious, if Botox is incorrectly administered, paralysis can occur.

The FDA approved Botox in 1989 to treat facial tics and spasms, but according to Dr. Stephen D. Silberstein,

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Director of the Jefferson Headache Center at Thomas Jefferson University Hospital, Professor of Neurology at Jefferson Medical College of Thomas Jefferson University in Philadelphia and the President-elect of the American Headache Society, only in the last three or four years has Botox been used to treat migraines.

Interestingly, Dr. Silberstein says "It was discovered by serendipity to relieve migraine in patients receiving it for wrinkles." People who received Botox to erase lines in their forehead, found their headaches were controlled as well. Dr. Silberstein says Botox "blocks pain fiber activity in the trigeminal nerve" and prevents migraines from occurring. Prevention is key because "One of the greatest bugaboos we see every day in headache centers is patients with chronic daily or near-daily headaches who are overusing medication."

For 28 million migraine sufferers, Botox could mean a dramatic improvement in symptom relief. While there are a number of studies about Botox and migraine underway, Botox has yet to receive FDA approval for headache, and therefore is not covered by most insurance companies.

Dr. Steven J. Frucht, Assistant Professor of Neurology at the Center for Parkinson Disease and Other Movement Disorders at New York's Columbia University reports that the use of Botox is "routine clinical practice now for dystonia" a condition of sustained muscle contraction often accompanied by twisting and repetitive movements. Injecting Botulinum Toxin Type A or B directly into the site chemically blocks nerves so that muscles that have habitually been contracted can relax and move more easily.

The use of Botox to treat dystonia is "covered by insurance including Medicaid and Medicare," according to Dr. Frucht. He added that Botox is "incredibly well-tolerated," and "less than five per cent of patients have problems with its use."

Two current uses for Parkinson patients, Dr. Frucht said, include injecting Botox to control excessive saliva or drooling, a use that is not FDA-approved and not yet covered by insurance. It is also used to stop blepharospasm or the involuntary blinking of the eye, an indication covered by insurance.

While there is clearly more research to be done, these and other uses of Botox appear to be promising in the treatment

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of brain and neurological movement disorders, and might just ironically enough provide a face lift for Botox, changing its image from cosmetic quick fix to a serious pharmaceutical.

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