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Botox Study Finds Toxin Can Invade Other Muscles

Botox can migrate to other parts of the body, placing patients at risk for developing symptoms of the paralyzing illness botulism, a news study says. The study contradicts assurances made by the maker of Botox, and comes just weeks after the Food & Drug Administration (FDA) announced that it was beginning a safety review of Botox and other similar drugs.

Botox, which is made with botulinum toxin type A, is approved in the US for treatment of conditions such as blepharospasm (spasm of the eyelids), cervical dystonia (severe neck muscle spasms), and severe primary axillary hyperhidrosis (excess sweating). Botox Cosmetic, which also uses botulinum toxin Type A, is approved for temporary improvement in the appearance of moderate to severe facial frown lines. A similar drug, Myobloc, is made from botulinum toxin Type B, and is approved for the treatment of adults with cervical dystonia.

According to the FDA, there have been reports of Botox, Botox Cosmetic and Myobloc reactions that are suggestive of botulism, which occurs when botulinum toxin spreads in the body beyond the site where it was injected. The most serious cases had outcomes that included hospitalization and death, and occurred mostly in children treated for cerebral palsy-associated limb spasticity. Use of botulinum toxins for treatment of limb spasticity (severe arm and leg muscle spasms) in children or adults is not an approved use in the U.S.

It has been widely assumed that Botox stayed in the muscle after it was injected and was therefore safe - but new research contradicts this. In the study, conducted at the University of Calgary, in Canada, and published in the Journal of Biomechanics, it was found that the product is not as easy to control as previously thought. Experimenting on cats, the Calgary team injected the toxin into a muscle at the back of the leg. Four weeks later, the time it takes for Botox to have its full effect, they measured the strength of this muscle, and that of a neighboring muscle.

The Botox study revealed the toxin passed easily into the surrounding muscles and weakened all the muscles in the area. The results support other research that has already shown that botulinum can pass through tissue surrounding muscle.

Allegan, the company that makes Botox, insists that the drug is safe, and points to the fact that it has been in use for more than 20 years. Still, Botox recipients have been warned to seek immediate medical attention if they experience worsening or unexpected difficulty in swallowing or talking, trouble breathing or muscle weakness following any injection.