BOTULINUM TOXIN A IS AN EFFECTIVE AND SAFE TREATMENT FOR CHRONIC MIGRAINE – NO

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For over a decade, botulinum toxin A has been the focus of intense study as a potential therapy for multiple types of headache disorders. At least 16 double blind placebo controlled studies have been completed and reported, yet only one of two pivotal trials, PREEMPT2, unambiguously met its primary endpoint for efficacy. Nonetheless, onabotulinumtoxinA has been approved for marketing in the United States for chronic migraine. The design and execution of the two pivotal phase III (PREEMPT) trials for chronic migraine were rife with flaws including (1) enrolling patients without the diagnosis of chronic migraine, (2) pooling data from trials that were not independent, and (3) inadequately controlling for unblinding. The magnitude of the reported positive findings from the PREEMPT program was modest and could be accounted for by differential degrees of unblinding between placebo and toxin groups. Evidence supporting such unblinding can be extrapolated from onabotulinumtoxinA phase II trials for chronic daily headache and onabotulinumtoxinA phase III trials for glabellar lines. In addition to concerns about the clinical significance of the PREEMPT efficacy data, several further studies indicate that onabotulinumtoxinA therapy for chronic migraine increases overall health care costs. Finally, emerging evidence from animal studies suggests that onabotulinumtoxinA is transported within axons to sites within the central nervous system where it may remain enzymatically active for at least 3 weeks. The long-term consequences in the CNS of repetitive and continuous exposures to onabotulinumtoxinA have not been studied. In sum, botulinum toxin A is unproven as an effective for treatment for chronic migraine and the long-term safety of such therapy is also unclear.