

## **[2003 Fall A30] Botulinum neurotoxin type a (bont-a) for relief of chronic low back pain**

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**Objective:** To assess the efficacy of botulinum neurotoxin type A (BoNT-A) (BOTOX®; Allergan, Inc.) therapy for chronic low back pain (LBP) with myofascial involvement of the iliopsoas muscle complex.

**Methodology:** We conducted a retrospective chart review of 10 patients with LBP (6 male, 4 female; ages 36–69). Prior to BoNT-A treatment, all patients exhibited symptomatic trigger points in the iliopsoas and quadratus lumborum muscles. Other possible causes of pain, such as hip pathology or significant lumbar nerve root compression, were ruled out. The duration of patients' pain ranged from 3 to 12 years. Although some improvement in pain/mobility with anesthetic/steroid injections was a screening requirement, anesthetic/steroid injections as well as physical therapy had failed to provide sustained relief. Pain was quantified using a visual analog scale (VAS, scores 0–10). Electromyography and fluoroscopy confirmed injection of 200 U into the psoas and 100 U to the iliac muscles. Patients were followed for up to 1 year. All remained in physical therapy following the BoNT-A injections.

**Results:** For all patients at post-treatment week 12, mean VAS score was 2.5 (range, 0–7; n = 8), compared with the mean pretreatment score of 7.3 (range, 4–10; n = 9). A 50% reduction in VAS pain score was clear by post-treatment week 1. The mean VAS score at weeks 2, 4, 6, 8, and 12 also showed reduction in pain of 52%, 87%, 79%, 81%, and 72%, respectively. Three patients had complete pain relief by week 2. This continued through the longest available follow-up (1 year for 1 patient and 6 months for the other 2). By week 12, pain appeared to be returning in 3 of 9 patients, but all remained improved compared with pretreatment baseline levels. No patient had increased pain, and no significant adverse events were noted.

**Conclusion:** BoNT-A, a targeted, focally acting muscle relaxant, is a proven pain relief agent that has been shown to provide functional improvement in movement disorders. This study suggests that a diverse group of patients with refractory, chronic LBP will experience prolonged pain relief following a single BoNT-A treatment delivered to the iliopsoas muscle complex. If further study confirms these preliminary results, BoNT-A may offer a safer, more effective alternative to anesthetic/steroid injection cycles.

