Botulinum toxin as a therapeutic agent to prevent relapse in deep bite patients.

The etiology of deep bite is multifactorial. One of the causes is increased muscular activity. This makes the treatment of deep bite malocclusions difficult and often results in relapse in many cases. In this work we compared patients with surgical orthognathic treatment only and surgical orthognathic treatment with additional injections of botulinum toxin after mandibular advancement for class II division 2 malocclusion. This is a prospective study. Adult patients were assessed pretreatment (T1), posttreatment (T2), and long-term after 1 year (T3). In total, 32 patients (mean age, 30.7 years; 23 women and 9 men) reached the study end point (T3); 24 patients were treated without botulinum toxin and 8 patients received preoperative injections of botulinum toxin. Significant differences between both groups were observed, with a more stable result for the experimental group treated with botulinum toxin. In a selective group of adult patients with a class II division II incisor relationship and with a class II skeletal base, botulinum toxin injections can effectively prevent relapse. This may present an alternative to a conventional myotomy.