ABSTRACT

Objective: We performed a retrospective review of patients treated with Botulinum toxin A (Botox) injections for laryngeal disorders from 2000 to 2010. Indications were categorized and outcomes assessed.

Methods: We performed a retrospective review of all patients treated with Botox injection in the larynx from 2000 to 2010. Indications were categorized and outcomes assessed.

Results: A total of 257 patients received laryngeal injections of Botox. Of these, 57 patients (22.2%) were treated for Spasmodic Dysphonia, 108 patients (42.2%) were treated for Vocal Fold Paralysis, and 92 patients (35.8%) were treated for other indications. The most common injection sites were the thyroarytenoid muscles (73%). The average number of injections per patient was 3. With 189 patients followed for at least one year, our results demonstrated a significant decrease in symptoms for most patients, with 75% of patients experiencing at least a 50% improvement.

Conclusions: Botox is a safe and effective treatment for a wide range of laryngeal disorders. Further studies are needed to determine the optimal injection sites and techniques for specific disorders.

INTRODUCTION

Botulinum toxin type A (Botox; Allergan, Irvine, CA) is a proprietary preparation of a purified neurotoxin complex. It is approved by the US Food and Drug Administration for treatment of laryngeal disorders by blocking neuromuscular transmission through the release of acetylcholine from nerve terminals. It has been used successfully for a wide variety of conditions, including strabismus, hyperhydrosis, cymbotonic strabismus, and blepharospasm. While its use in a variety of other disorders has been reported, its use in patients with Spasmodic Dysphonia, Vocal Fold Paralysis, and other laryngeal disorders has been limited to case reports and case series. The aim of this study was to review the indications and outcomes of Botox injection in the larynx from 2000 to 2010.

METHODS AND MATERIALS

We performed a retrospective review of all patients treated with Botox injection in the larynx from 2000 to 2010. Indications were categorized and outcomes assessed. The most common injection sites were the thyroarytenoid muscles (73%). The average number of injections per patient was 3. With 189 patients followed for at least one year, our results demonstrated a significant decrease in symptoms for most patients, with 75% of patients experiencing at least a 50% improvement.

RESULTS

A total of 257 patients received laryngeal injections of Botox for laryngeal disorders. Of these, 57 patients (22.2%) were treated for Spasmodic Dysphonia, 108 patients (42.2%) were treated for Vocal Fold Paralysis, and 92 patients (35.8%) were treated for other indications. The most common injection sites were the thyroarytenoid muscles (73%). The average number of injections per patient was 3. With 189 patients followed for at least one year, our results demonstrated a significant decrease in symptoms for most patients, with 75% of patients experiencing at least a 50% improvement.

DISCUSSION

Botox can be injected to counteract antagonistic muscular activity. 1 One patient is being treated for laryngeal dystonia with botulinum toxicity for more than 4 years. Only cases with laryngeal dystonia without associated cranial dystonia were included. To our knowledge, this is the first report of laryngeal dystonia treated with botulinum toxicity using a modified injection protocol. All patients treated received a single injection of 200 U of botulinum toxicity for laryngeal dystonia. 7 The study was conducted at the American Laryngological Association Winter Meeting in 2012.