BOOK REVIEW

Botulinum neurotoxin for head and neck disorders, 2nd ed., edited by Blitzer A, Benson BE, and Kirke DN, New York, Medical Publishers, Inc, Hardcover \$129.99 2020, 226 pages Language: English ISBN-10: 1684200954 ISBN-13: 978-1684200955

Botulinum neurotoxin is a product of clostridial species bacteria that has been studied extensively. As the book describes, it interferes with the release of various neurotransmitters and perhaps neuropeptides, which is believed to be the mechanism of action of this agent in a wide variety of medical conditions. The basis of muscle weakening and decreased glandular output induced by this neuromodulator seems to be more straightforward than its impact on pain syndromes, as the effect of botulinum toxin on nociceptive pathways has proven to be a bit more elusive, although many theories have been proposed. One disadvantage of this treatment modality is that periodic repeated injections are usually necessary. Nevertheless, the wide range of disparate conditions that are effectively treatable with botulinum toxin injection is vast and ever-growing, providing an excellent, minimally invasive therapeutic alternative.

A comprehensive review of head and neck clinical applications of botulinum toxin injection, this text was edited by three very experienced otolaryngologists with chapters authored by experts in the field. Following an initial basic science chapter on the biochemistry and mechanism of action, each subsequent chapter focuses on specific uses of botulinum toxin in the head and neck region, which includes the following:

- (1) Essential blepharospasm
- (2) Facial dystonia
- (3) Meige syndrome
- (4) Oromandibular dystonia
- (5) Spasmodic dysphonia
- (6) Cervical dystonia
- (7) Hemifacial spasm and facial synkinesis
- (8) Hyperfunctional facial lines
- (9) Upper and lower esophageal spasm
- (10) Palatal myoclonus
- (11) Temporomandibular disorders, masseteric hypertrophy, and cosmetic masseter reduction
- (12) Laryngopharyngeal applications
- (13) Migraine
- (14) Chronic tension headache

- (15) Trigeminal neuralgia
- (16) Frey syndrome
- (17) Facial hyperhidrosis
- (18) Sialorrhoea
- (19) Radiation-induced spasm and pain

That extensive list covers the lion's share of botulinum toxin applications (including FDA-approved and off-label uses) in the head and neck region. It is not feasible to cover every reported use of botulinum toxin, such as ophthalmic indications (e.g., strabismus, hyperlacrimation, temporary tarsorrhaphy, reduction of upper eyelid retraction, management of spastic entropion, etc.), which would more likely be featured in a text edited and authored by ophthalmologists and other non-ophthalmic indications (e.g., other types of neuropathic pain such as post-herpetic neuralgia, wound healing, and scarring), and assuredly other indications will surface in the years ahead.

The chapters are concise and well organised, and the content geared towards practising clinicians. There are numerous high-quality colour photographs, well-labelled diagrams, and links to videos (using QR codes) virtually in all chapters, showing treatment techniques, which is a nice bonus. Live videos are far superior to static photographs. Most chapters are generally structured as follows: Introduction, Workup, Anatomy, Treatment, Follow-up, Complications and Pitfalls, Conclusion, Key Points/Pearls, with some variability according to the topic. For example, history and physical exam are covered in some sections, and discussion of surgical alternatives in others, as deemed relevant. There is a nice discussion of each subject before launching into treatment. Each chapter is well referenced, although, interestingly, none of the references cite the year of each publication, no doubt a stylistic point. However, that makes it difficult for the reader to know how recently the cited book or article was published. The book is very clinically oriented, with detailed instructions re the various techniques, making it a very practical and indispensable guide for clinicians who manage conditions of the head and neck.

David A. Weinberg
Concord Eye Center, Concord, NH, USA
Daweinberg60@gmail.com

© 2020 Taylor & Francis Group, LLC
<https://doi.org/10.1080/01658107.2020.1823998>