

Botulinum toxin to treat severe vocal cord dysfunction in asthma patients

March 24 2014



A world-first clinical trial is using botulinum toxin (otherwise known as

Botox) to treat severe vocal cord dysfunction in patients with asthma.

Vocal Cord Dysfunction is a condition where the vocal cords move in an abnormal, uncoordinated way, causing episodes of severe breathlessness and wheezing. This can be mistaken for a severe asthma attack which fails to respond to conventional asthma treatment.

The research was led by Monash University Department of Medicine's Professor Philip Bardin, who is also Director of Respiratory and Sleep Medicine for Monash Health, and Dr Malcolm Baxter, ENT Surgeon.

It is a focus on translational research in partnership with Monash University, the Monash Institute of Medical Research (MIMR) and Prince Henry's Institute of Medical Research (PHI). Together, the organisations form the Monash Health Translational Precinct.

The trial involved injecting [botulinum toxin](#) directly into the vocal cords of patients with severe asthma that results in upper airway problems, Professor Bardin said.

"We trialed other methods of delivery, but we found the greatest benefit was achieved when we used a bronchoscope to guide our injections to a very specific area of [vocal cord](#) tissue, where we inject a small amount of Botox," Professor Bardin said.

"This partially paralysed the muscles and caused the voice box to relax and allow air through."

A small cohort of 11 patients was chosen due to their [asthma](#) severely impacting their daily lives and causing vocal cord dysfunction. They received a total of 24 injections, with approximately 60 per cent of those patients observing a significant reduction in symptoms.

"This treatment may not be suitable for all patients, but the early indicators are that it may be an option for those with severe upper airway distress, which is very exciting," Professor Bardin said.

"Many of these [patients](#)' symptoms are extremely severe, so it has been tremendously satisfying to provide them with some relief."

Although Professor Bardin reinforced that more research is required, he also said objective measures such as CT scanners were able to show significant improvements in airway function.

"We are always conscious that injections can produce a strong placebo effect, but the CT results suggest the treatment has solid efficacy," Professor Bardin said.

Provided by Monash University

Citation: Botulinum toxin to treat severe vocal cord dysfunction in asthma patients (2014, March 24) retrieved 18 April 2024 from <https://medicalxpress.com/news/2014-03-botulinum-toxin-severe-vocal-cord.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.