

肉毒桿菌毒素治療閩南語內轉型痙攣性發聲障礙療

效個案報告：聽覺感知與聲學的評估

An Acoustic and Perceptual Analysis to the Effect of Botulinum Toxin on Taiwanese Adductor Spasmodic Dysphonia : A Case Report

郭令育;林永松;邱銘章

摘要

本文旨在以聽覺感知與聲學的角度，評估一名說閩南語內轉型痙攣性發聲障礙個案注射肉毒桿菌毒素前、後語音的差異，並探討其在臨床治療之意涵。聽覺感知結果顯示，個案治療後聲調與塞音的聽辨正確率、整體沙啞度、粗糙度與緊度大多較治療前改善。聲學分析大致呼應聽覺評估的結果，個案在治療後，振幅變動度、發聲中斷度、發聲基本頻率等多較治療前降低。然而其噪音與諧音比值、第一與第二諧音的能量差、6K噪音能量，卻較治療前為高，也就是個案治療後氣息聲音質反而較治療前明顯。使用肉毒桿菌毒素治療內轉型痙攣性發聲障礙，可阻斷神經傳導，有效改善喉內肌痙攣，減少個案音質緊度、發聲中斷等症狀，並可改善個案對塞音與聲調的控制。但阻斷神經傳導的結果，卻也會造成聲門閉合不全，導致氣息聲特質的產生，這是在臨床應用上所需注意的。

Abstract

The speech of a Taiwanese patient with adductor spasmodic dysphonia prior and post-injection of botulinum toxin (Botox) were investigated through acoustic and perceptual analyses. The results showed that perceptually, the correct identification rate of lexical tones and stops were enhanced after injection of Botox, and the roughness and strainedness of voice quality were reduced. Acoustically, degree of voice break and the perturbation of frequency and amplitude were also diminished after Botox injection. However, breathiness in voice increased after the injection. The results indicate that Botox is effective at improving voice quality and control of lexical tones and stops in the Taiwanese patient with adductor spasmodic dysphonia. The improvement of voice quality and accompanied breathiness after the injection of Botox may result from the reduction of adductor spasms. It is therefore suggested that while Botox is adopted to reduce adductor

spasms in spasmodic dysphonia, the consequent breathiness needs to be taken into consideration