

## **Botulinum toxin injection into salivary glands for promoting swallowing rehabilitation, communication and quality of life in a patient with tracheostomy and severe swallowing disorders post stroke**

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Introduction: Swallowing disorders (SD) post stroke may lead to serious respiratory complications and tracheostomy. Botulinum toxin type A injection in salivary glands (BTISG) is a treatment option for sialorrhea, a sign of SD. Purpose: To present a case of a stroke patient with tracheostomy, severe SD and sialorrhea, treated with BTISG. Case report: A 73-year-old man with stroke, admitted to our Center on 25/06/2015, presented with tetraparesis, a tracheostomy tube (TT) and PEG tube due to severe SD. GCS score: 11/15. He followed intensive rehabilitation program, but had several episodes of serious respiratory infections, treated in ICU. Fiberoptic Endoscopic Evaluation of Swallowing (FEES) showed absent gag reflex and aspiration. Chest CT scans revealed trachea dilatation, endoscopically confirmed. A TT of adjustable length with cuff was placed (January 2016). No respiratory infection occurred after March 2016. Mental, physical and mobility status improved significantly. His main complaint was the inability to speak and communicate. Following intensive speech therapy and FEES, a speaking TT was placed (July 2016). Saliva and bronchial secretions remained excessive, but were managed effectively by coughing. Anticholinergics initially used had no results. After BTISG (August 2016), saliva and bronchial secretions reduced significantly, allowing deflating the cuff initially and, finally, capping the tracheostomy for almost 10 hours daily, with no complications, enabling speaking, communicating, participating; improving his mood and quality of life (QoL). Conclusions: BTISG combined with an intensive rehabilitation program resulted in significant improvement of SD, enabling the patient to communicate and participate, thus improving QoL.