

Management of Pharyngoesophageal Spasm in Laryngectomy using Videofluoroscopic-guided Injection of Botulinum Toxin: A Case Study

Deirdre Leavy¹, Paul Lennon²

1. Dept. of Speech and Language Therapy, St James's Hospital, Dublin, 2. Dept. of Otolaryngology-Head and Neck Surgery, St. James' Hospital, Dublin.

Background:

Functional tracheoesophageal (TO) voice production after laryngectomy is dependent on relaxation and vibration of the pharyngoesophageal segment (PES). Hypertonicity and spasm of the PES are causes of suboptimal TO voice. A single case study is presented examining assessment and treatment of severe PES spasm with botulinum toxin injection.

Methods:

Clinical assessment and air-insufflation testing under videofluoroscopy (VFU) enabled differential diagnosis of PES spasm by the Speech and Language Therapist (SLT). VFU imaging enabled identification of the vibratory segment and optimal injection point. Injection of 2% Lidocaine, followed by Botox[®] Type A & saline solution was administered by ENT Consultant, under guidance of the SLT and VFU image. Outcome measures and a series of recorded videos were taken before, during and after the procedure.

Results:

Prior to procedure, the patient presented with severe PES spasm (absent TO voice). Gradual improvement in maximum phonation time and sentence length were obtained post-procedure (Day 0, 5, 25). Functional TO voice was maintained at 4 and 7 months[™] post-procedure.

Conclusion:

Joint SLT / ENT management is required in management of PES spasm. Botulinum toxin was found to be a safe and effective treatment in a single case study, allowing for functional TO voice.