Satisfaction and voice outcome of injection thyroplasty for unilateral vocal cord palsy in patients with incurable advanced malignancy–a pilot study

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Keywords:
vocal cord palsy
injection thyroplasty
Voice satisfaction
Incurable malignancy

Introduction
Vocal cord palsy is commonly originated from malignant infiltration to recurrent laryngeal nerve, especially those who have incurable disease. These patients present with phonation and swallowing difficulties that compromise their quality of life. Open medialization thyroplasty was the standard option of treatment. However in view of the poor general condition of this group of patients, some of them could not tolerate this invasive surgery. Injection thyroplasty was introduced since 2013 by the Department of ENT, Tuen Mun Hospital to provide a minimally invasive alternative for patients who could not undergo open surgery. Biocompatible material, hyaluronic acid, was injected transcutaneously to augment the vocal cord and close the glottis insufficiency.

Objectives
To study the effectiveness and safety of injection thyroplasty for patients with unilateral vocal cord palsy related to incurable advanced malignancy.

Methodology
This is a retrospective review from February 2014 till January 2015. Patients who underwent injection thyroplasty for unilateral vocal cord palsy due to underlying metastatic malignancy were recruited. Age, sex, underlying cause, operative duration, patient’s satisfaction and maximum phonation time (MPT) were collected.

Result
There were total of 7 patients, 6 male and 1 female, received injection thyroplasty with hyaluronic acid during the study period. The mean age was 67.5 (55-80) years ago. The most common etiology was carcinoma of lung, 5 patients, followed by 1
carcinoma of colon and 1 carcinoma of cervix. The mean time of procedure was 10 minutes. There was no morbidity and mortality related to procedure. Three patients died of underlying malignancy in 3 weeks, 1 months and 5 months time. The duration of efficiency was 2 to 5 months. All patients were satisfied with the voice outcome postoperatively and they could communicate with relative through phone. There was a mean 4 points reduction of VAS score after injection. The mean MPT increased from 3.3 (1-6) seconds preoperatively to 9.8 (8-14) seconds postoperatively. Five patients had swallowing problem during liquid ingestion preoperatively showed improvement with no more choking after the procedures. One patient successfully weaned off nasogastric tube for swallowing after the procedure.