INTRODUCTION

Early stage glottic cancer can be managed successfully with radiation therapy, or conservation laryngeal surgery including laser cordectomy. 

Local control rates of patients with early stage glottic cancer treated with laser cordectomy have been reported equal to those achieved with radiation therapy.

Laser cordectomy is considered as one of the best techniques for the treatment of early stage glottic cancer. But voice outcome and quality of life(QOL) after laser cordectomy is controversial. The aim of this study is to evaluate the voice outcome after laser cordectomy in glottic cancer and its association to QOL.

METHODS AND MATERIALS

• 43 patients with glottic cancer who underwent laser cordectomy from January 2002 to December 2008 were enrolled into this study. We evaluated objective and subjective voice outcome using acoustic analysis, aerodynamic study and voice handicap index(VHI). We also assessed QOL using EORTC QLQ-C30/35 questionnaire.

• We compared voice outcome according to type of laser cordectomy and analyzed correlation between voice outcome and QOL.

RESULTS

• Harmonic to noise ratio(HNR) and maximum phonation time(MPT) of patients treated with type I, II cordectomy were significantly increased after operation(Table 6). However, acoustic parameters of type III-VI cordectomy group were not significantly improved after surgery(Table 7).

• Voice parameters had no correlation with VHI score, but it had positive correlation with postoperative VHI score.

DISCUSSION

• This study evaluates the correlation between voice outcome and QOL through the analysis of objective and subjective voice parameters.

• In this study, HNR and MPT were improved after type I, II cordectomy, while type III-VI cordectomy group showed no significant difference after surgery.

• VHI score was significantly improved after operation in type I, II cordectomy group, while not in type III-VI cordectomy group.

• Postoperative QOL score of type I, II cordectomy group was poorer than that of type I, II cordectomy group, but it is not statistically significant(Fig.1).

• QOL score was correlated with VHI score, however acoustic parameters were not correlated to VHI and QOL score.