OBJECTIVE:

To describe a novel method of using the GlideScope to perform coblation of the tongue base for patients with obstructive sleep apnea.

INTRODUCTION

Obstructive sleep apnea (OSA) is increasing in prevalence both in the United States and internationally. A significant proportion of patients with OSA demonstrate upper airway obstruction at the level of the oropharynx due to enlarged tongue base or lingual tonsils. While continuous positive airway pressure (CPAP) devices are widely used, many patients are unable to fully benefit from this due to either intolerance of the device or significant anatomic obstruction. Volumetric reduction of the tongue base can be performed on patients with narrowed oropharyngeal airway to improve their OSA. We describe a novel method of using the GlideScope to perform coblation of the tongue base for patients with obstructive sleep apnea.

METHODS

This was a descriptive study to assess the feasibility of using the GlideScope for tongue base coblation in adult patients with obstructive sleep apnea and oropharyngeal obstruction. Patients underwent expansion sphincter pharyngoplasty and volumetric tongue base reduction using coblation at a single setting. After the pharyngoplasty, GlideScope assisted lingual tonsillectomy and tongue base reduction was performed using the Arthrocare EVac 70 Xtra Plasma Wand. Coblation was continued until the epiglottis was visualized as an endpoint.

RESULTS

Patients were admitted to the ward for a night of observation and discharged on postoperative day 1 on a soft diet.

DISCUSSION

Patients with OSA and tongue base enlargement are commonly intubated using the GlideScope as they tend to be more challenging to intubate using the traditional laryngoscope blades. For these patients, the use of the GlideScope for the tongue base coblation adds zero additional expense to the procedure. The GlideScope can retract the dorsal tongue while allowing excellent angled visualization of the lingual tonsils. The amount of pressure exerted on the alveolus and tongue are significantly less than when placing the patient in traditional mouth gag suspension. The use of the GlideScope in our practice has significantly decreased operative time and cost while also allowing the procedure to be performed without the need for an assistant.

CONCLUSIONS

The GlideScope video laryngoscope is a cost effective, time efficient and safe method of visualization when performing tongue base coblation in patients with obstructive sleep apnea and narrowed oropharyngeal airway.