

OSA Caused By Retention Cysts And Tongue Base

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Citation

M Enoz. *OSA Caused By Retention Cysts And Tongue Base*. The Internet Journal of Head and Neck Surgery. 2006 Volume 1 Number 2.

Abstract

Tongue retention cyst has been reported to cause obstructive sleep apnea (OSA) only once in the literature (1). We present a case of a 38-year-old nonobese male with a 3-year history of progressive, positional snoring, snort arousals, and apneas. He denied dysphagia, stridor, or orthopnea while awake, and he preferred sleeping in erect position on the bed. He was found to have severe OSA caused by epiglottal dropping down due to two tongue base retention cysts. While positive airway pressure therapy was not successful, excision of cysts and tongue base radiofrequency were curative. OSA caused by tongue base retention cysts and epiglottal dropping down is discussed. This case suggests that careful flexible endoscopic examination direct can help predict those at risk for CPAP failure.

INTRODUCTION

Obstructive sleep apnea syndrome (OSA) results in part from anatomic obstruction of the airway during sleep. Retention cysts, including the presence of the base, represent a rare cause of this disorder. In the literature it is unclear that effects of epiglottal movement abnormality on OSA. In this article we describe a new case of epiglottal dropping down due to tongue base retention cysts as a cause of OSA.

CASE REPORT

A 38-year-old male was referred to our clinic for three years of progressive, positional snoring, snort arousals, and apneas. He denied dysphagia, stridor, or orthopnea while awake, and he preferred sleeping in erect position in the bed. The patient noted progressive daytime somnolence; his Epworth Sleepiness Scale (ESS) was 15. Body mass index (BMI) was 24. Apnea-hypopnea index (AHI) was 31/h.

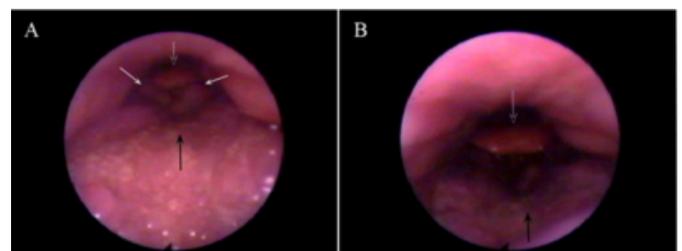
On examination oropharynx was showed as normal. There is not tonsillary hypertrophy. Rhinoscopic examination was normal.

Nasal continuous positive airway pressure (CPAP) at 9 cm of water pressure relieved obstructive events. The flexible nasopharyngolaryngoscopy was not carried out and CPAP treatment was started at there. Despite two months of CPAP therapy, the patient noted no change he felt that his sleep and breathing. The patient was referred to our hospital and flexible nasopharyngolaryngoscopy is performed for detailed upper airway evaluation in the. Epiglottal dropping down

due to two tongue base retention cysts is showed when respiration with retropalatal area was normal. Tongue base was showed as hypertrophic. (Figure I-A). Retention cysts were removed and tongue base radiofrequency were performed under general anesthesia. Two months following the procedures, snoring and apneas had disappeared (AHI= 11/h.). His daytime somnolence is decreased (ESS= 7). On the flexible nasopharyngolaryngoscopy tongue base was shown as reduced, airway collapse and epiglottal dropping down were not found (Figure I-B).

Figure 1

Figure 1: Two retention cysts (white filled arrows) of the tongue base are causing to dropping down of epiglottis (dotted white arrow) therefore it's lead to airway closure. Tongue base (black arrow) is shown as hypertrophic (A). Postoperative two months, tongue base is shown as reduced, airway collapse and epiglottal dropping down is not found (B). (Capture from flexible nasopharyngolaryngoscopy).



DISCUSSION

Retention cysts in the vallecula and tongue base are seen occasionally in older patients and may cause swallowing problems (2). Obstruction of the airways by retention cysts is

a rare condition and hardly found in children (2). Tongue retention cyst has been reported to cause OSA with leading to directly airway closure only once in the literature (1). However it's never been reported that retention cyst as a cause to epiglottal dropping down thus cause to airway closure and OSA. There have been only a limited number of reports of movement abnormalities and lesions of epiglottis that have resulted in OSA (1,2,3,4).

The recent case report is emphasized that abnormality of epiglottal movement may lead to airway closure and treatment failure in OSA patients (3).

Management of retention cysts at the tongue base is drainage if those are symptomatic (apnea, swallowing problems etc.). In our case, cysts drainage and tongue base radiofrequency were sufficient for relief of patient's symptoms.

Clinicians should evaluate for OSA in patients with upper airway masses and abnormalities in an effort to identify the condition and to assess its response to CPAP. This information would also help guide the need for further treatment (medical or surgical).

A careful evaluation for oropharyngolaryngeal lesions with directly and flexible endoscopically should be performed in all patients with suspected OSA, especially for patients with the recent onset of symptoms (snoring, apnea, etc.) that are not associated with weight gain or those who do not tolerate CPAP.

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