

CT of Nasopharyngeal Lipoma: A Case Report<sup>1</sup>코인두 지방종의 전산화단층촬영: 증례 보고<sup>1</sup>Hee Youn Hwang, MD<sup>1</sup>, In Ho Lee, MD<sup>2</sup>, Chang June Song, MD<sup>2</sup>, Yeo-Hoon Yoon, MD<sup>3</sup>,  
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A 74-year-old woman presented with nasal obstruction and voice change for the previous 5 months. She underwent a neck CT and a submucosal mass with focal fat density (-32 HU) was found at the nasopharynx. She underwent an endoscopic excisional biopsy and the pathology revealed the lipoma in the nasopharynx.

## Index terms

Nasopharynx

Lipoma

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## INTRODUCTION

Lipomas are slow growing benign tumors composed of adipose tissue (1). In the head and neck, lipomas are relatively rare, accounting for 1.0-2.2% of all benign tumors of the oral cavity (2). Previous studies have reported a peak incidence of lipomas in the 5th and 6th decades (2, 3). Among them, the nasopharyngeal lipoma is considered extremely rare.

Most nasopharyngeal lipomas arise from submucosal adipose tissue and present with a sessile stalk or pedicle (2).

We report a case of nasopharyngeal lipoma diagnosed in a 74-year-old woman.

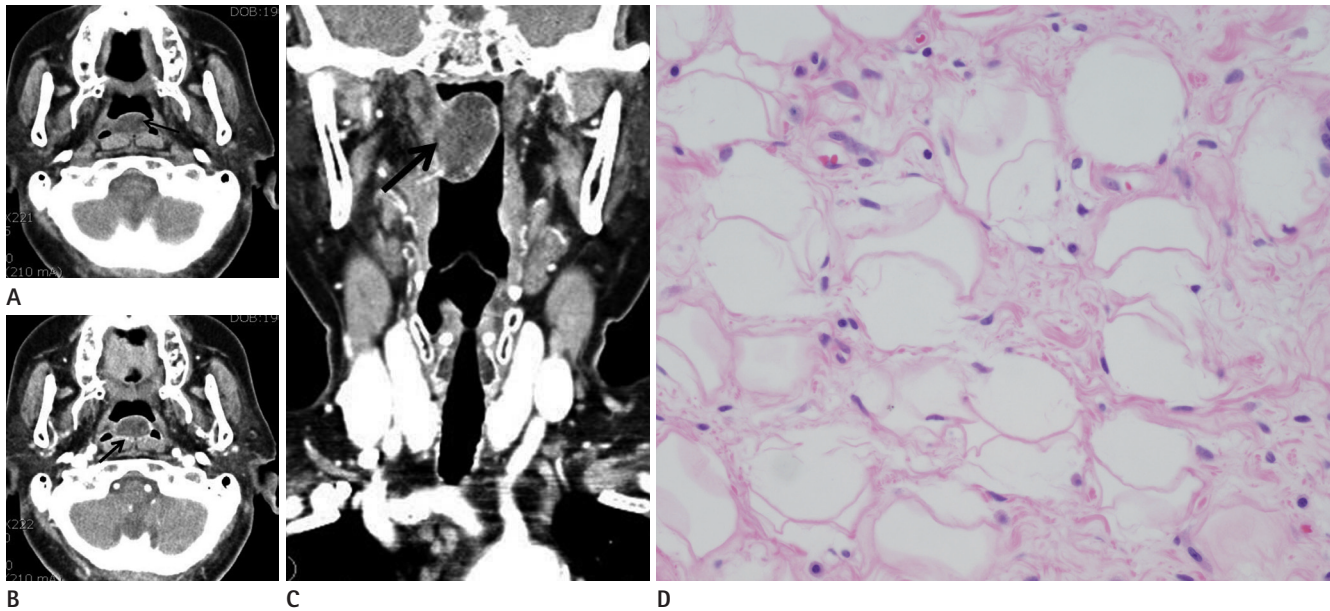
## CASE REPORT

A 74-year-old woman presented nasal obstruction and voice change for the previous 5 months. She underwent a neck CT, which revealed a 2.4 × 1.2 × 3.2 cm sized well circumscribed submucosal mass in the nasopharynx. The mass showed low attenuation (-32 to 17 HU) without any calcification, compared to adjacent muscles on precontrast CT scan,

which also showed low attenuation (-25 to 26 HU) without definite enhancement after contrast media administration (Fig. 1). The mass protruded into the nasopharynx and caused mild luminal narrowing of the nasopharyngeal airway. The pathology revealed a lipoma, which was composed of mature adipocytes and focal myxoid changes in the nasopharynx (Fig. 1).

## DISCUSSION

Lipomas can occur anywhere including head and neck. Previous data indicates that 30% of lipomas occur in the head and neck region (2). The tumor usually occurs in the subcutaneous tissue of the posterior neck, but in rare cases, occurs in the anterior neck, infratemporal fossa, oral cavity area, laryngopharyngeal airway, and parotid gland (2). To our knowledge, very few case reports describe nasopharyngeal lipomas (1-5). Patients present with various symptoms including rhinorrhea, post nasal drip, nasal obstruction, epistaxis, anosmia, foul nasal odour, halitosis, palatal or retropharyngeal mass, foreign body sensation, dysphagia, hearing loss, aural



**Fig. 1.** A 74-year old woman with a nasopharyngeal lipoma.

**A.** Non-contrast axial CT scan reveals a well circumscribed low attenuated submucosal mass (up to 17 HU) in the nasopharynx, with a focal fat density (-32 HU) (arrow).

**B, C.** Contrast enhanced axial and coronal CT scans demonstrate no definite enhancement (-25 to 26 HU) in the nasopharyngeal mass (arrows).

**D.** The mass is composed of mature adipocytes with focal myxoid changes (H&E,  $\times 400$ ).

fullness, otalgia, cervical adenopathy, voice change, cranial nerve involvement and meningitis (1, 2, 6). In our patient the chief complaint was nasal obstruction and voice change for the previous 5 months. Previous studies described presentation as a polypoid or pedunculated mass (1, 5, 6), and our case had a stalk, which was not definite on a CT scan.

The characteristics of the CT and magnetic resonance imaging findings are almost pathognomonic for nasopharyngeal lipoma. The uniform low density of fatty tissue on CT scan and high signal intensity on T1 and T2 weighted images without enhancement are very specific (2, 4, 7). In our case, CT scans showed a lesion with low attenuation and without infiltration or destructive growth and definite contrast enhancement. However, some portions of the mass did not show fatty attenuation, but did show low attenuation (up to 17 HU) on a precontrast CT scan. This may be attributed to myxoid change, which was revealed by pathological assessment. Complete removal of the tumor is the curative method, although postoperative radiotherapy was recommended in the case of recurrence or partial resection (2, 7).

In conclusion, we report a rare case of a nasopharyngeal lipoma in a 74-year-old woman. Although the location of the

lipoma in our patient is very unusual, the lipoma can occur anywhere.

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## 코인두 지방종의 전산화단층촬영: 증례 보고<sup>1</sup>

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74세 여자가 5개월간의 코막힘과 목소리 변화를 주소로 내원하였다. 환자는 경부 전산화단층촬영을 시행하였고 코인두에 지방(-32 HU)을 포함하고 있는 점막하종괴가 발견되었다. 환자는 내시경 절제생검을 시행하였고 코인두의 지방종으로 확인되었다.

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