

## Symptomatic Retropharyngeal Lipoma: Case Report

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**Abstract:** Lipomas are benign tumors of mesenchymal origin, which usually develop very slowly and demonstrate a non-infiltrating behavior and they tend to growth slowly. This paper is presenting a case of an adult diagnosed with retropharyngeal lipoma, thus expanding currently literature. Considering hypothesis of SPL when evaluating a patient with bulbar signs, snoring or with excessive daily sleepiness and consider computer tomography or magnetic resonance imaging of the neck to confirm diagnosis and promptly refer patient for a surgical evaluation.

**Keywords:** retropharyngeal, lipoma, dysphagia, dyspnea.

### CASE STUDY

Lipomas are benign tumors of mesenchymal origin, which usually develop very slowly and demonstrate a non-infiltrating behavior and they tend to growth slowly. About 13% of these masses occur in the head and neck region, most commonly subcutaneously in the region of posterior neck. However the retropharyngeal space lipomas (SPL) can be considered as a very rare entity (Chrysovitsiotis, G. *et al.*, 2020). Clinical presentation is generally atypical: patients can be healthy without noticeable symptoms for very long periods: increasing pressure on surrounding structures can cause SPL manifestations such as dysphagia, dyspnea, snoring, excessive daytime sleepiness (Chrysovitsiotis, G. *et al.*, 2020). Computed tomography (CT) of the neck may suggest diagnosis; however, magnetic resonance imaging (MRI) is considered the best neuroimaging exam when suspecting SPL, with 100% specificity for simple lipomas (Leong, P. *et al.*, 2017). Surgical approach is suggested when typical symptoms appear: the preferred surgical approach is usually transoral, while transcervical approach can be considered an alternative option for large lipomas because it guarantees an easier access to the mass (Ghammam, M. *et al.*, 2019).

Aim of our paper is to present a case of an adult diagnosed with retropharyngeal lipoma, thus expanding currently literature (79 cases have been described so far) (Chrysovitsiotis, G. *et al.*, 2021).

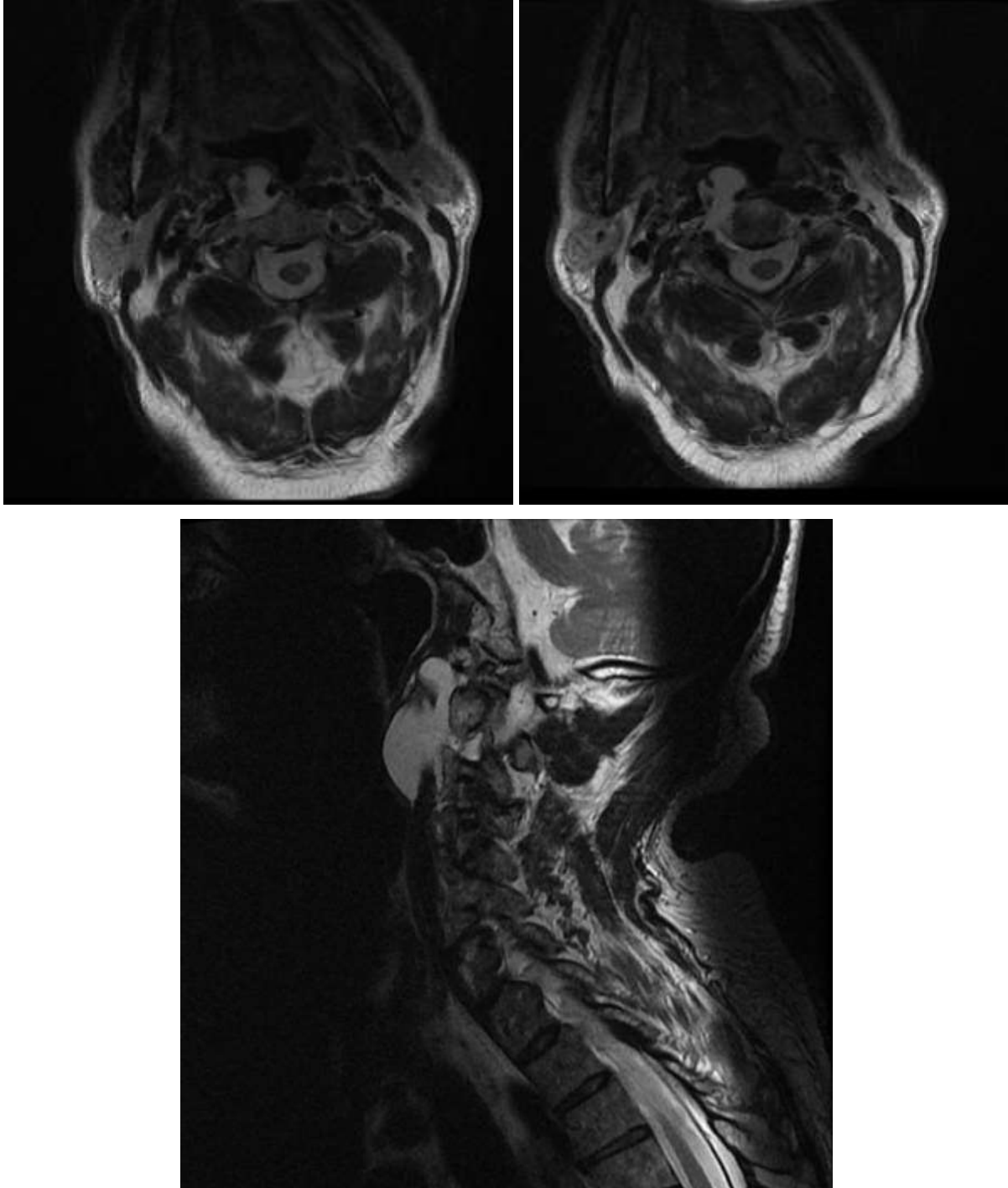
We report the case of a 71 year-old Caucasian patient with previous medical history of diabetes mellitus, arterial hypertension and mild cognitive impairment, who was evaluated due to persistent

dysphagia for solids and liquids, excessive daytime sleeping started three months before and progressively worsened during time. Electromyography excluded motor neuron signs, especially spontaneous activity in the tongue. Neck computer tomography showed right retropharyngeal soft multilobed lipoma with few thin regular septae measuring 5 cm x 3.3 cm in the posterior pharyngeal wall extending to C2-C3 transverse foramen and conjugation and did not enhance after intravenous contrast. Cervical magnetic resonance imaging confirmed a capsulated hyperintense lesion at T1 and T2, suppressed fat with the use of fat-suppression pulses, that was extended through the intervertebral foramen into the spinal canal, divided the fibers of the prevertebral muscles, dislocated oropharynx and posterolateral margin of the uvula, with consequent narrowing of the airways (figures 1-2). Surgery evaluation was proposed but, due to SARS-COV2 pandemic he decided to postpone follow-up but unfortunately his dementia progressively worsened with appearance of behavior disorders, for which he was diagnosed for Alzheimer's disease and treated with antipsychotic drugs. He didn't perform any more evaluations for retropharyngeal lipoma and he died after eight months due to SARS-COV2 pneumonia.

A recent review considered 52 publications and described 79 cases of SPL, of which 73 were surgically treated and 60 presented complete recover after treatment (Chrysovitsiotis, G. *et al.*, 2021). Our patient is male as most of reported subjects, was diagnosed with both CT and MRI

was referred to a evaluation for surgical treatment and perhaps after surgery his symptoms could have improved even if diagnosis of Alzheimer's disease quickly worsening could have prevented surgeons to treat him. Our case report can expand current literature. In conclusion we suggest considering

hypothesis of SPL when evaluating a patient with bulbar signs, snoring or with excessive daily sleepiness and consider computer tomography or magnetic resonance imaging of the neck to confirm diagnosis and promptly refer patient for a surgical evaluation.



**Figures 1-3:** AXIAL T1 images showing C2-C3 SPL, extended through the intervertebral foramen into the spinal canal

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