

Case Report

Retropharyngeal space lipoma: an unusual cause of dysphagia

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ABSTRACT

Lipomas are uncommon in the head and neck region and rare in the retropharyngeal space. Lipoma of the retropharyngeal space may cause aerodigestive tract obstruction presenting as dyspnea and or dysphagia. The presenting symptoms will depend on the size and site of the lipoma in the retropharyngeal space. We present the case of a 57 years old male with 6 months' history of progressive dysphagia to solid foods only and no positive sign on clinical examination. The barium swallow was normal. The computed tomography (CT) scan showed a moderate-sized homogenous mass of fat density in the hypopharyngeal section of the retropharyngeal space. Diagnosis of dysphagia caused by retropharyngeal lipoma was made. This was surgically excised via the trans-cervical route with no complications, complete resolution of symptoms, and no recurrence 2 years after on follow-up. In the dysphagia of unknown cause, retropharyngeal space lipoma should be considered.

Keywords: Retropharyngeal space, Lipoma, Dysphagia, Case report

INTRODUCTION

Retropharyngeal space (RPS) is a potential space located between the middle and deep layers of the cervical fascia and spans from the skull base to the upper mediastinum. Anteriorly it is related to the upper aerodigestive tract, laterally to the Para-pharyngeal space and posteriorly to the prevertebral space. The RPS is further subdivided into the supra-hyoid and infra-hyoid portions. The suprahyoid portion contains lymph nodes and adipose tissue and the infra-hyoid portion contains adipose tissue without lymph nodes.¹

Tumors of the RPS can either be primary or secondary by direct extension of tumors of surrounding structures or metastasis to the lymph nodes. Primary RPS tumors are rare as literature search shows mainly isolated case reports of these tumors. Lipomas are benign tumors of the adipose tissue which is found mainly in the peripheral parts of the body in adults. It is, however, uncommon in the head and neck region and rare in the retropharyngeal space. The

symptoms and signs of RPS lipoma will depend on the size and site within the space. We present a case of average sized retropharyngeal space lipoma which presented with dysphagia in an adult Nigerian.

CASE REPORT

A 57 years old male advertising consultant, presented with 6 months history of progressive dysphagia to solids. There was no associated history of snoring, noisy breathing, dyspnea, dysphonia, fever, or weight loss. He was not a known hypertensive or diabetic patient. There was no posterior oropharyngeal wall bulge on oropharyngeal examination or neck swelling. His barium swallow study result was normal. His neck CT scan, however, showed a non-enhancing homogenous mass of fat density (HU 90) in the left retropharyngeal space measuring 3.2×3.2×5.5 cm with an estimated volume of 26.6 ml displacing the laryngeal air-column to the right at the level of C4–C6 posterior to the hypopharynx. No pathologic lymph node was noted.

The diagnosis of dysphagia secondary to retropharyngeal tumor was made. Surgical excision of the lipoma was performed via the trans-cervical route. Elective tracheostomy for anticipated difficult intubation was carried out intra-operatively before the surgical excision with subsequent decannulation 3 days after. The excised mass was 6×5×2.5 cm in size. Histopathology was reported as a lipoma. The symptom of dysphagia resolved post-surgery and there has been no recurrence of symptom two years after on follow-up.

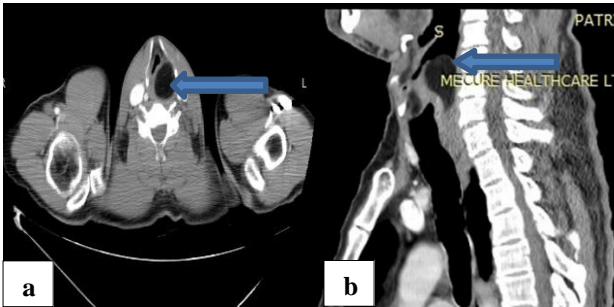


Figure 1: (a) Axial view of CT scan neck showing a homogenous mass in the hypopharyngeal section of the retropharyngeal space causing deviation of the laryngeal air column to the right side, and (b) sagittal view showing the size and location of the homogenous mass.

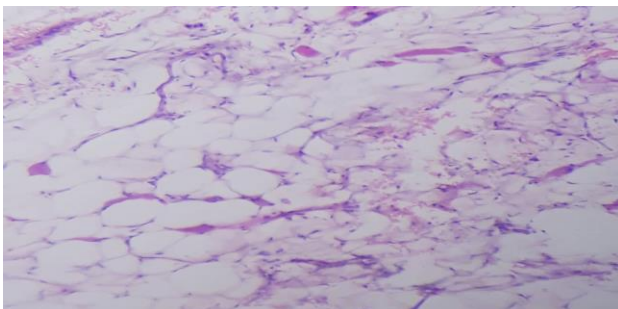


Figure 2: Histomicrograph of the excised tumor showing numerous mature adipocytes in a matrix of fibrous tissue.

DISCUSSION

Primary tumors of the retropharyngeal space are rare and have been published only as case reports in both adults and children.²⁻⁵ Lipomas are the commonest primary RPS tumors that have been reported. Ghammam et al in their case report on retropharyngeal lipoma noted that as of 2019, less than 50 cases had been reported in the literature.² Other primary RPS tumors reported, include liposarcoma, schwannoma, fibrolipoma, chordoma, and synovial sarcoma.⁶⁻⁸ These are all case reports.

The clinical presentation of patients with primary retropharyngeal space tumors depends on the size of the tumor and position of greatest impact. Since adipose tissue is found in both the suprahyoid and infra-hyoid portions of

the retropharyngeal space, lipomas can be in either or both portions. The presenting symptoms include dysphagia, globus sensation, noisy respiration, snoring, dyspnea, obstructive sleep apnea, hoarseness and painless neck mass.²⁻⁴ The patient presented with progressive dysphagia without pain which commonly will signify an obstructive esophageal lesion. Mitotic lesions of the esophagus are more commonly associated with progressive dysphagia. Other important causes of dysphagia are strictures and achalasia.

Progressive dysphagia was the only symptom in this patient. Clinical examination did not reveal any sign. CT scan showed evidence of the non-enhancing homogenous mass posterior to the hypopharynx compressing the hypopharynx and the esophageal inlet. The distensible nature of the RPS portends that tumors here remain asymptomatic until they reach a size big enough to create a mass impact on the surrounding structures as in other case reports.²⁻⁴ The location of the tumor in the RPS as well as the size will determine the actual presenting symptom due to the surrounding structure of significant mass impact. This seems to be the main explanation for presenting symptom of the index patient even when the size was moderate. Posterior oropharyngeal wall bulging is usually caused by the suprahyoid RPS location of the tumor. This was absent in this patient where the tumor was located at C4-C6. Neck swelling is a rare presentation that usually arises from the parapharyngeal space extension of the tumor which was absent in this patient.

CT scan and MR imaging are very helpful in the diagnosis of RPS tumors. Lipomas in the RPS on non-contrast CT scan appear as homogenous low-density areas of -60 to -120 Hounsfield units. On magnetic resonance (MR) imaging on the other hand lipomas appear as a high-density signal on T1 weighted and T2 weighted fast spin-echo sequences.⁹ MR imaging may also be able to differentiate the benign lipoma from the malignant liposarcoma.

Lipomas are the most common mesenchymal tumors arising from the lipocytes. About 13% to 25% of them occur in the head and neck region.^{10,11} They are classified pathologically into simple lipoma, fibrolipoma, spindle cell lipoma, infiltrating lipoma, salivary gland lipoma and myxoid lipoma, pleomorphic lipoma and liposarcoma.¹² The simple lipoma is the commonest seen sub-type in RPS.

Surgical excision of primary retropharyngeal tumors causing obstructive symptoms is the main-stay of treatment. A few reports exist in literature where RPS lipomas were managed non-surgically by observation and serial radiologic follow up due to reasons ranging from significant comorbidities to lack of symptoms or refusal of surgery.¹³ Approaches for the surgical excision of RPS lipomas include trans-oral and trans-cervical. The choice of approach will depend on the size and site of the tumor. Trans-oral is the preferred approach used mostly for smaller tumors that can easily be accessed via the

oropharynx.^{5,9} The trans-cervical approach is used for large tumors and tumors which cannot be accessed via the oropharynx because of their location.⁴ The trans-cervical approach was used in our patient because of the location. Pre-operative tracheostomy as in this patient for anticipated difficult intubation is common in our centre.¹⁴ The approach gave us good access to the tumor for total excision. This is the first report of retropharyngeal space lipoma in our center.

CONCLUSION

Retropharyngeal space lipomas are a rare cause of dysphagia. Awareness and a high index of suspicion are needed for the diagnosis. CT scan or MRI is essential for the diagnosis. This should be considered in cases of dysphagia of unknown cause. The trans-cervical approach of surgical excision is advised for large tumors and tumors in obscure locations that cannot easily be accessed via the trans-oral approach. Histopathology of the excised mass is mandatory to confirm the diagnosis.

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