CASE REPORT

A Rare Case of Retropharyngeal Hibernoma

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SUMMARY

Hibernoma is a slow growing, rare benign tumour, which derived from brown adipose tissue. This tumour is usually found in the area where foetal fat persists such as back, axilla, retro peritoneum and thorax. Hibernoma rarely occurs in the retro pharynx. We report a case of retropharyngeal hibernoma in a 44-year-old male. He presented with obstructive symptoms for six months and a retropharyngeal mass upon examination. His CT scan findings showed a mass in the prevertebral region from level of C2 until C5 causing narrowing of upper aero digestive tract. Histopathological examination reported as hibernoma.

KEY WORDS:
Hibernoma, retropharyngeal mass

INTRODUCTION

Merkel first described hibernoma as pseudo-lipoma in 1906. Since Merkel first description of this tumour, several names have been used interchangeably to describe the similar tumour, such as foetal lipoma, lipoma of embryonal fat and lipoma of immature adipose tissue. In 1914, Gery has called it as hibernoma due to its morphological resemblance to brown fat found in hibernating animals.[1] Since then, hibernoma has been used in most literature to describe a benign tumour, which originated from brown fat tissues.

CASE REPORT

A 44 year-old male presented with noisy breathing for six months duration associated with difficulty in breathing and dysphagia. His noisy breathing was described as snoring or stertor. He has no fever, neck swelling or voice change. He denied any contact with tuberculosis patient.

On examination, patient has no stridor and neck swelling. On flexible nasopharyngolaryngoscopic examination, there was a smooth bulging over the posterior wall of oropharynx till hypo pharynx.

We did computed tomography (CT) scan for this patient and showed a well defined mass mixed with fat and soft tissue in the prevertebral region from level of C2 until C5, the mass causing narrowing of the oropharynx as well as the laryngopharynx in the region of epiglottis. The impression from imaging was lipomatous lesion of the retro pharynx.

We did a trans oral excision of the retropharyngeal mass. The specimen was sent for histopathological examination.

The histopathological examination of the specimen showed a poorly circumscribed tumour, composed of proliferation of polygonal brown fat cells, in clusters separated by fibrous bands. The cells are multivacuolated with abundant granular cytoplasm and small central nucleus. Immunohistochemical examination showed a positive result for Vimentin and S100. The diagnosis given was hibernoma.

The patient was followed up until 10 weeks post operative and the symptoms has resolved and the examinations show normal pharynx and larynx. We only followed him up until 10 weeks after surgery because the patient wanted to go back to his country in Bangladesh.

DISCUSSION

Hibernoma is generally seen in area where foetal fat persists such as back, axilla, retro peritoneum and thorax.[2] To best of our knowledge, there is no reported case of retropharyngeal hibernoma in the literature. However there was one case described in the literature of retropharyngeal malignant tumour closely resembling hibernoma.[3] In this case, the patient presented with neck swelling for five months without any obstructive symptoms. Examination and barium swallow showed presence of retropharyngeal mass at the level of hyoid bone. Biopsy of the retropharyngeal mass reported as fibrous tissue. The patient later developed upper airway obstruction and only on neck exploration they noticed a huge neck mass extending into the prevertebral and retropharyngeal area. The overall appearance of mass on histopathological examination was that of a malignant tumour closely resembling hibernoma in some areas and well-differentiated liposarcoma in others. With a pathology report of sarcoma, the patient received radiation to the neck and upper mediastinum.

The peak incidence of hibernoma is in the third or fourth decade of life, rarely in childhood and there is a slight female preponderance.[4] Symptom of hibernoma is painless enlargement of tumour. As for our patient, he presented with difficulty in breathing. This is due to its location in the retropharyngeal space. For that reason, the excision was done under emergency.

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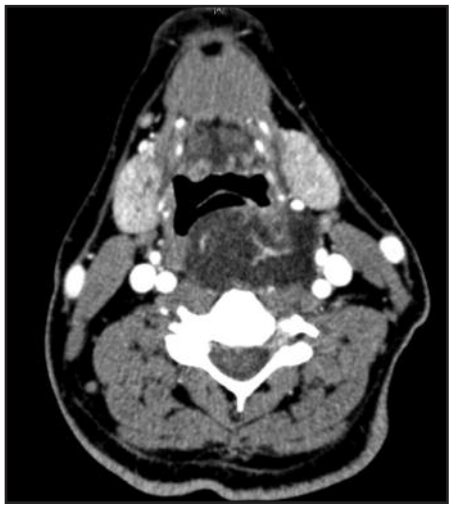

Fig. 1: CT scan showed a retropharyngeal mass.

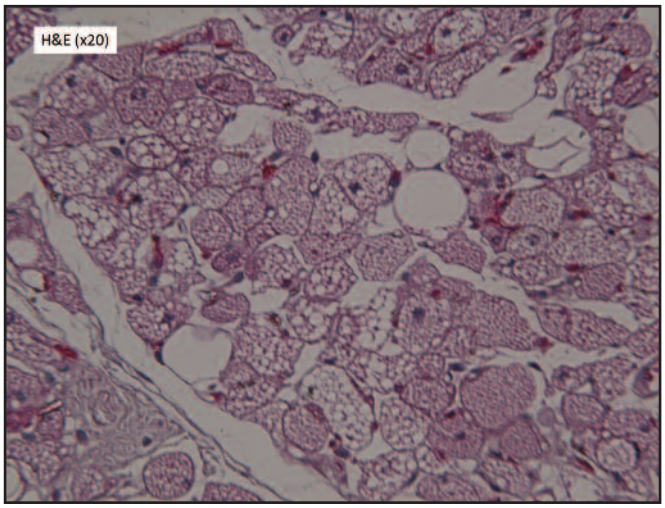

Fig. 2: The cells contain numerous cytoplasmic vacuoles with small and round nuclei. Some of the nuclei are centrally located.

On imaging, the hibernoma has low attenuation on CT scan and hyperintense or isointense with fat on T1-weighted-images MR images, and heterogeneously increased signal intensity on T2-weighted images.[5] In our patient we did a CT scan and showed a low intensity lesion in the retropharyngeal region. The impression at that point of time was lipomatous lesion on imaging. We did not proceed with MR imaging because the excision need to be done under emergency.

Surgery is the mainstay treatment, and so far the recurrence rate is very low following complete excision.[1]

CONCLUSION

Hibernoma involving retro pharynx is rare, however it may present as an emergency, so it should always be considered as a differential diagnosis. Nevertheless, with complete excision the tumour rarely recur.

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