UNUSUAL CASE OF LARYNGEAL LIPOMA

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Abstract: Lipomas are benign tumors, composed of fat cells of the adult type. While lipomas on the trunk and limbs are common, they are rare in the upper aerodigestive tract. Here we report a case of laryngeal lipoma presented with a complaint of change of voice.

Keywords: Larynx, Lipoma

INTRODUCTION

Laryngeal lipomas are very rare tumors. The diagnosis of a lipoma in the subcutaneous tissue of the body does not usually evoke much interest, except when it is large enough to cause a cosmetic problem or interfere with function as a result of its anatomical position. Benign lipomas are by far the most common soft tissue tumor. They are usually in a subcutaneous location. Benign lipomas may occur anywhere in the head and neck, including the palate, the tongue, the tonsil, the larynx, and the parotid. It should be considered as a differential diagnosis of laryngeal masses

CASE REPORT

A 63 years old male presented in V.S.Hospital with complain of change of voice with change in position of head since 6 months duration. There was no history of difficulty in breathing. He was a non-smoker. His medical history was unremarkable. Indirect laryngoscopy revealed a supraglottic smooth pendunculated mass arising from the right arytenoid with intact mucosa. The mass did not increase during Valsalva manoeuvre or straining during fiberoptic examination. CT scan of the neck showed the low attenuation value characteristic of adipose tissue with no signs of cartilage destruction (photo 1). The mass was excised endoscopically with diode laser. (photo 2) Histopathological examination confirmed the lipomatous nature of the mass. (photo 3). Post operative care was routine, without need of intubation or tracheostomy. The patient was followed up with no recurrence of mass.

DISCUSSION

INCIDENCE: The literature up to 1965 shows only 70 cases worldwide. Only 16 cases were truly intrinsic and the rest were

extrinsic. Of the intrinsic the most common site is the false cord. Most of these tumors arise from the periphery of the laryngeal inlet, i.e. the aryepiglottic fold and the epiglottis⁽¹⁾. While 13% of lipomas occur in the head and neck region, only rarely do they occur in the pharynx.⁽⁵⁾ Fewer than 100 laryngeal lipomas have been described in the English literature, of which the vast majority of patients present in the sixth decade of life or older⁽²⁾ Larynx and hypopharynx lipomas are reported to account for approximately 0.6% of benign laryngeal neoplasms⁽⁴⁾ They are found equally in men and women.

ETIOLOGY:

The etiology of lipomas is unknown. One theory is that the fibroblast is a multipotential cell which may differentiate into a fat cell and form a lipoma. Another theory is that lipoma arises from lipomatous tissue which is found below the false cords, epiglottis, and aryepiglottic fold⁽²⁾.

PATHOLOGY:

Lipomas are benign slow growing neoplasms composed of mature white fat cells⁽⁵⁾ They are usually encountered in the supraglottic area because it is the site of most of the laryngeal fat⁽¹⁾ Typically laryngeal lipomas present as solitary⁽²⁾ Laryngeal lipomas are mostly isolated occurrences and not associated with systemic lipomatosis.

CLINICAL FEATURES:

Diagnosis of laryngeal lipoma is usually challenging. Symptoms from all reported cases range from dysphagia, dyspnea, airway obstruction, hoarseness, globus pharyngeus. There have been

Fig I: Unusual case of Laryngeal Lipoma (CT Ccan)

Fig II: Unusual case of Laryngeal Lipoma (Excised specimen)

Fig III: Unusual case of Laryngeal Lipoma (HPE)

case reports of patients asphyxiating from the tumor regurgitating into the laryngeal introitus. Frequently, the laryngeal lipoma will present as a submucosal mass, however it can present as a pedunculated intraluminal projection.

DIFFERENTIAL DIAGNOSIS:

Endoscopically, lipomas can be confused with a mucous retention cyst or laryngocele.. Histopathologically, lipomas are encapsulated tumors with mature white fat cells . , Well-differentiated liposarcomas may appear similar, however they lack a capsule and are infiltrative with cytologic evidence of atypia and often contain lipoblasts. Liposarcomas often have a rapid growth .

RADIOLOGY:

Radiographic imaging shows less dense to X-rays than other soft tissues. Laryngeal lipomas have characteristic CT scan findings which demonstrate a nonenhancing homogenous structure with low attenuation and a density lower than water . The computed tomographic scan therefore not only reveals the extent of the tumor but also establishes its lipomatous nature. Magnetic resonance imaging with fat suppression is diagnostic. It not only reveals the extent of the tumor but also establishes its lipomatous nature ⁽¹⁾.

MANAGEMENT:

Surgery is the treatment of the choice for laryngeal lipomas. Small tumors can be removed endoscopically, large tumors may require an external approach, for example lateral pharyngotomy, laryngofissure or subhyoid pharyngotomy, depending on site of origin. Both tumour size and location should be considered when planning the approach for removal. As with all benign laryngeal lesions, removal should be function sparing ^(1, 2).

Endoscopically surgery is done by holding the tumor from its base and with the help of CO₂ or diode laser the tumor is excised. In external approach a subplatysmal flap is elevated, the perichondrium over the ipsilateral thyroid cartilage is deflected. A thyroid cartilage window is formed. Yellowish colored encapsulated mass is found. It is excised completely without breaching of the mucosa of the endolarynx.

Left untreated, lipomas can be life threatening with cases of airway obstruction reported and death. Lipomas also must be removed for a definitive pathologic diagnosis to exclude liposarcoma. The surgeon should weigh the morbidity of an external approach with the chance of recurrence with incomplete removal. However recurrence is uncommon, on the order of 5%. ⁽²⁾

CONCLUSION:

From the size of the tumor and well known slow growth rate of a lipoma, it is our conjecture that it was present for a considerable period of time before diagnosis. We did not immediately consider lipoma in the differential diagnosis of the mass because Lipomas tend to be soft, spherical, and cystic and this lesion was firm and pendulous. Furthermore, lipomas occur most frequently where fat cells are abundant and the pharynx is a muscular tube with very little fatty tissue. . So although lipomas in the larynx are rare, this case highlights the need to consider it in the differential diagnosis of throat masses.

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