

Multiple Myxoid Lipomas of Supraglottic Region

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ABSTRACT

Though lipomas are very common tumors occurring in the head and neck region, there are very few case reports of submucosal lipomas of the upper aerodigestive tract. A case of myxoid lipoma of the supraglottic region is reported.

Keywords: Myxoid lipoma, Supraglottic larynx.

INTRODUCTION

Lipomas are benign mesenchymal tumors and quite often found in the head and neck region. Less than 15% of all lipomas affecting head and neck, the larynx is the least affected area.³ Intrinsic lipomas are rare and occur as isolated masses. They are slow growing usually solitary, encapsulated, subcutaneous or submucosal. Histologically, they are made up of mature adipocytes.⁴ A myxolipoma is a variant of lipoma in which myxoid changes has taken place. They contain gelatinous stroma. They are smooth, encapsulated and solitary.

To the best of our knowledge, only two cases of solitary myxoid lipomas in the supraglottic region have been reported in the English literature.^{1,2} We present a case of multiple myxoid lipomas involving the supraglottic region in a young adult male. Three distinct masses were removed from the supraglottic region submucosally. It is the first case being reported as multiple myxoid lipomas managed successfully.

CASE REPORT

A young 25-year-old male presented with difficulty in breathing and change in voice. The difficulty in breathing was slow onset and progressively increasing for the last 4 months. He was unable to sleep in supine position as there was obstruction in the airflow. The voice was muffled and hot potato like. On indirect laryngoscopic examination, a mass was seen in the right supraglottic area, obscuring the whole of laryngeal inlet. CT scan neck was ordered. He was uncomfortable while lying still in supine and there were artifacts in CT scan. CT scan neck showed a soft tissue mass in the right supraglottic area (Fig. 1). The patient presented again with severe respiratory distress with low SpO₂. Emergency tracheostomy was done under local anesthesia. Two days later, the patient was taken up for surgery. Suspension laryngoscopy was done under GA. A large soft, submucosal bilobed mass was seen with broad base arising from the right side laryngeal surface of epiglottis and aryepiglottic

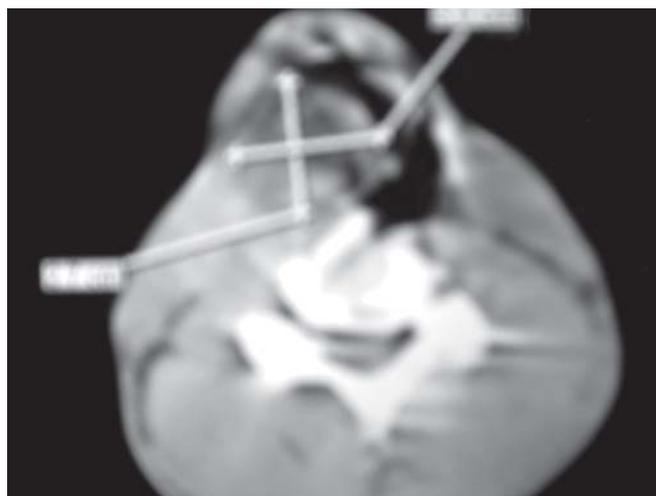


Fig. 1: CT scan of neck

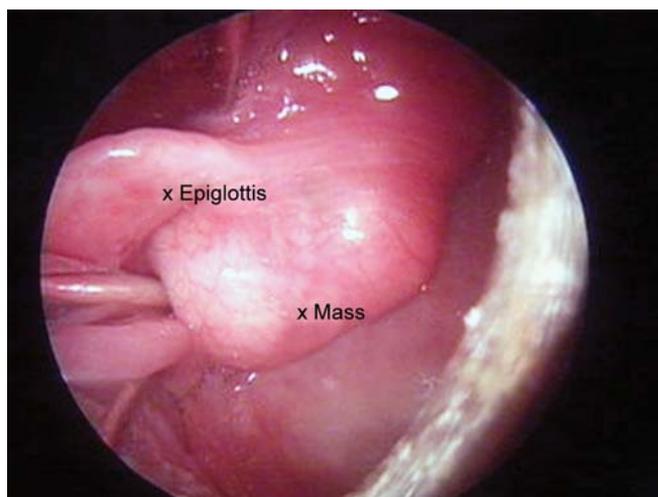


Fig. 2: Direct laryngoscopic examination

fold (Fig. 2). The vocal cords were visible partially (posterior part) on pushing the mass anteriorly. With anterior pharyngotomy approach, submucosal dissection was done. Three separate



Fig. 3: Enucleated three distinct masses

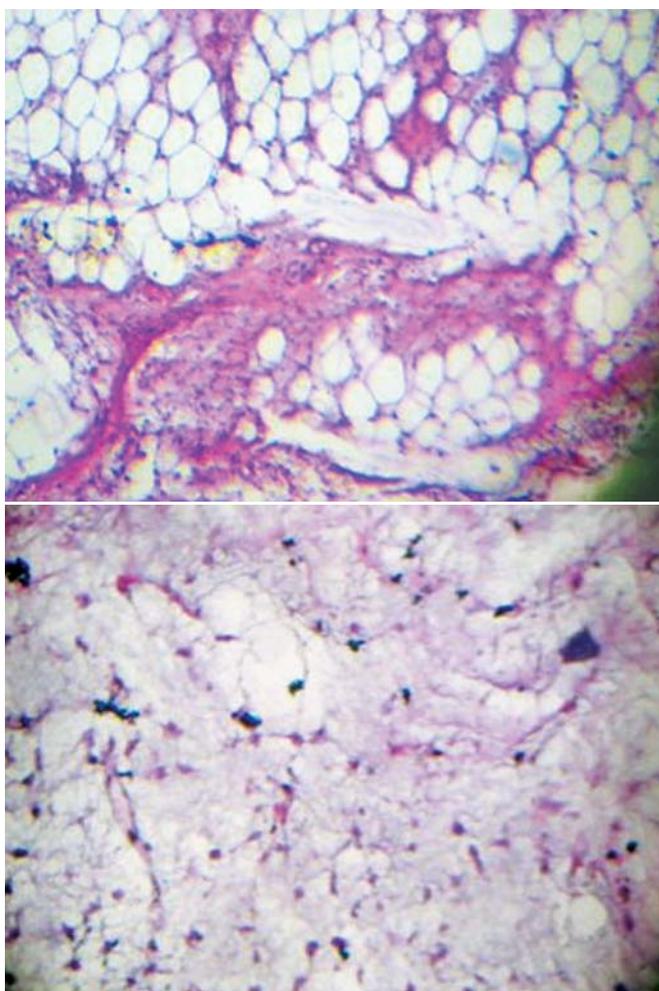


Fig. 4: Microphotograph

lobular masses were enucleated measuring 7×5 cm. These masses were grayish, soft, friable with slimy surface (Fig. 3). The mucosa was stitched back to the underlying muscles and margins. The wound was closed in layers. Nasogastric tube was introduced. The postoperative period was uneventful. Tracheostomy tube was removed on 6th postoperative day. Stitches were removed on 8th day, and nasogastric tube was

removed on 10th postoperative day. Oral feeding was started. Fiberoptic endoscopy was done on 15th postoperative day. There was little edema of the false vocal cords and epiglottis otherwise the larynx was normal. The histopathological examination revealed lobules of large vacuolated adipose tissue cells with regular small nuclei pushed to the periphery. These are separated by variable amount of fibrous tissue strands. Areas with prominent myxomatous changes were noted—myxolipoma (Fig. 4).

DISCUSSION

Lipomas are slowly growing, benign mesenchymal tumors composed of adipose tissue. They are usually solitary, encapsulated, subcutaneous or submucosal masses. They primarily affect men. Histologically, they are made up of mature adipocytes.⁴ In larynx, the lipomas usually arise in the supraglottic area and aryepiglottic fold, vestibular fold and epiglottis as there is lot of fat in these areas. These masses are believed to develop from multipotential fibroblasts that differentiate into fat cells to form a lipoma.⁵ The fat cells found in a lipoma are uniform in shape and size.

Lipomas are rare during the first two decades and usually appear between 40 and 60 years. Most (but not all) lesions are superficial.⁶ Small foci of myxoid changes are occasionally found. In rare cases, designated as 'myxolipoma', these changes may be extensive and their rich vascularity may become clearly apparent. The myxoid change, which rarely dominates the histological picture and has no effect upon prognosis, may impart a microscopic appearance that may be confused with a myxoma or myxoid liposarcoma.⁷ Myxoid material is composed of glycosaminoglycans, sulphated (chondroitin sulphate, keratan sulphate) and nonsulphated (hyaluronic acid). It appears on H&E sections as a thin amorphous semitransparent substance which may be confounded with edema. Its presence can be confirmed by special stains, such as alcian blue and only chondroid substance (sulphated GAG), will remain positive after treatment by hyaluronidase.⁵ Chen et al (1984) described the electron microscopic picture of myxoid lipoma. Adipocytes are in different stages of differentiation with lipid globules of variable size observed in the cytoplasm.

Many pinocytotic vesicles appear at the plasma membrane. Mature adipocytes are surrounded by a basal lamina. Fibroblasts, collagen fibers, and mucoid material were scattered among adipocytes. They concluded that in the histogenesis of myxoid lipoma, multipotent mesenchymal cells undergo multidirectional differentiation. Some cells differentiate to produce mucosubstance, while others differentiate to become adipocytes.⁶ Immunohistochemistry (IHC) is not of much help in diagnosing myxolipoma except for focal positivity of CD34. They stain negative for panCK, MSA, SMA and GFAP, whereas S100 is weak or focally positive. These can be useful in differentiating from chondrosarcoma, DFSP, myxoid leiomyosarcoma, myofibroblastic lesions and nerve sheath differentiation. The usual complaints are change of voice and

respiratory obstruction. The management of these tumors depends upon the size and the site of origin. They are either pedunculated or broad based.

The management includes total excision by microlaryngeal submucosal microdissection, excision of the pedicle endoscopically. Large and broad-based tumors are excised by laryngofissure, anterior or lateral pharyngotomy approach. Regardless of the surgical approach, excision of tumors should be completely done in order to avoid a possible recurrence.³ They may recur over an extended period of time. If they are pedunculated or large, the most dangerous complication of these tumors is sudden death.⁸

CONCLUSION

Myxolipoma is a variant of lipoma where myxoid degeneration has taken place. Intrinsic laryngeal lipomas are very rare and myxolipomas are rarer. Reported myxolipomas in larynx are solitary. Multiple myxolipomas have not been reported in the literature till date. A case of multiple myxolipoma in the supraglottic area is reported. Laryngeal myxoid lipomas need special attention as they can cause acute respiratory obstruction. Intrinsic myxolipomas can be managed endoscopically, if

solitary and small. In large and multiple tumors, the line of treatment is laryngofissure, anterior or lateral pharyngotomy with temporary tracheostomy.

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