CASE REPORT

Extensive Giant Lipoma of Oropharynx

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ABSTRACT

Lipoma is a benign, slow growing tumour composed of adipose tissue. In general, it is very unusual for lipoma to form in the head and neck region, let alone achieve a size of more than 10 cm with the involvement of deep neck spaces. We discussed a case of an extremely huge neck lipoma measuring 18 cm x 14 cm with extensive involvement of deep neck spaces, infratemporal fossa and pharynx, closely adherent to submandibular and parotid gland. The diagnostic and therapeutic challenges were discussed, in achieving a surgically complete excision and cosmetically acceptable outcome.

Keywords: Lipoma, Benign neoplasm, Neck, Oropharynx

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INTRODUCTION

Lipoma occurrence in head and neck region is only about 13% of all cases (1) and majority arise in the posterior neck. Involvement of the infratemporal fossa, anterior neck, parotid gland, oral cavity, pharynx and larynx are rarely reported. Common presentation is painless, slow growing neck swelling of several years which often being ignored. Often only when symptomatic or cosmetically unpleasant that brings patients to medical attention. Majority of head and neck lipomas are small, measuring less than two centimetres. In a rare occurrence, head and neck lipoma can attain a gigantic size. A giant lipoma refers to a lesion measuring over 10 cm in maximum diameter or weight over 1000g (2). However, with extensive involvement of the head and neck spaces, possibility of a malignancy should be suspected. Thus, a meticulous examination and thorough investigation should be performed. Futhermore, giant lipomas are usually situated in deeper planes and are able to displace the surrounding structures, which makes surgical excision challenging and not without complications.

CASE REPORT

A 36-year-old healthy lady complained of worsening muffled voice for 3 months. She noticed the voice change in the past 4 years. She claimed that there was a swelling inside her oral cavity, which was increasing in size, associated with orthopnea, snoring and difficulty of breathing on exertion. She had no dysphagia and no constitutional symptoms. She also showed a huge neck swelling underneath her veil, which was there and painless. It was slowly growing for the past 3 years with no other associated symptoms.

On examination, she was not in respiratory distress, but a mouth breather with muffled voice. Intra-orally, there was a huge, smooth-surfaced swelling arising from the left tonsillar region measuring approximately 5 x 5 cm (Fig. 1). The swelling pushed the uvula to the right. A laryngoscopy revealed the extension of swelling until the base of tongue with no involvement of laryngeal structures. Flexible nasopharyngolaryngoscopy was unable to pass through the narrowed nasopharynx region attributed to oropharyngeal swelling. Neck examination revealed a huge left neck swelling, with indiscrete margins, measuring about 18 cm x 14 cm (Fig. 2). The mass extended from the left pre-auricular area posteriorly to the mastoid tip and anterior border of trapezius muscle, inferiorly involving submandibular and submental region down to the left clavicle. The swelling dangled from the neck to the level of sternum. It was soft in consistency and not tender on palpation. The surface was multilobulated without adhering or tethered to the skin. The left salivary glands, parotid and submandibular were not palpable. No neck lymphadenopathy. The trachea and thyroid cartilage were in the midline.

Fine needle aspiration for cytology (FNAC) attempted; no material aspirated. Therefore, we proceeded

Figure 1 : Swelling arising from left tonsillar region causing oropharyngeal obstruction

Figure 2: Huge left neck swelling dangled to the level of sternum

with incisional biopsy; however only fatty tissues were obtained. Thus histopathology (HPE) result was inconclusive. The contrast-enhanced computed tomography (CECT) of the neck showed a large, left antero-lateral neck multi-septa mass measured 16.1 cm x 16.8 cm x 4.7 cm, consisted predominantly fatty tissues with enhancing solid component within the mass (Fig. 3). The mass extended from left infratemporal space to the clavicle level, medially it extended beneath the mandible and protruded into the nasopharynx,

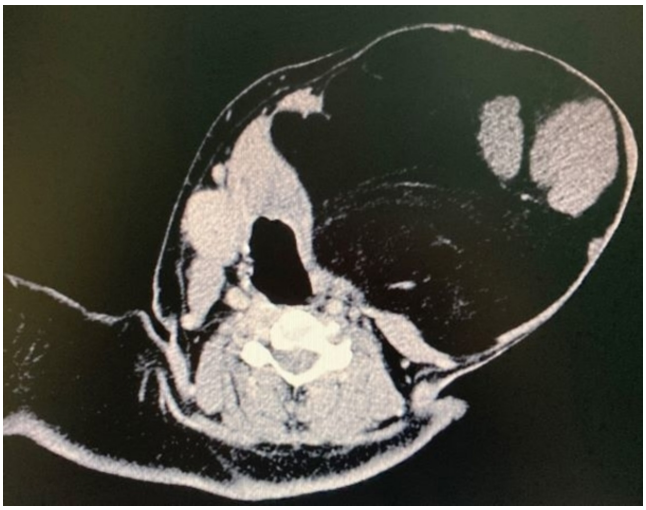

Figure 3: Solid component likely parotid gland within the lipoma

oropharynx and supraglottic part of larynx, causing obstruction (Fig. 4). The mass also pushed the sternocleidomastoid muscle posteriorly. It compressed onto the hard palate, posterior aspect of tongue and the epiglottis. The left common carotid artery is displaced posteriorly, the left internal jugular vein is displaced and compressed. In keeping with aggressive liposarcoma, we proceeded with surgical removal via external approach. Awake fiberoptic oral intubation was successfully performed on a single attempt during the induction of general anaesthesia. The decision for the intubation technique used was made following the anticipation of difficult airway. Modified Blair incision was used to approach the mass. Intraoperatively, it was very difficult to identify branches of the facial nerve as they were stretched thinly over the surface and superficial to the swelling. The mass, weighing 1600 g consisted of three lobules, it was deep to the left parotid gland and extended to the left parapharyngeal space and oropharyngeal space. HPE reported as lipoma with

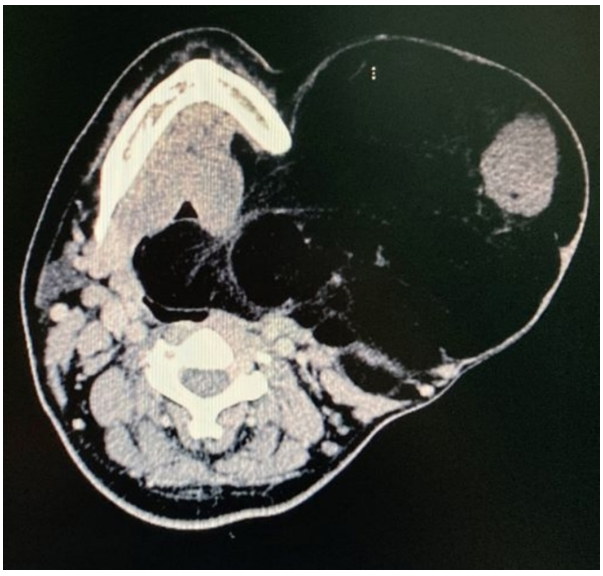

Figure 4: Intraoral and oropharyngeal extension of lipoma

focal myxoid change. Postoperative, she had reduced left nasolabial fold, marginal mandibular paresis. Upon review at 3 months after the surgery, no more facial asymmetry or significant cosmetic disfigurement was noted.

DISCUSSION

The main concern in any huge neck swelling is to rule out malignancy, in this case, liposarcoma. Clinically, it is indistinguishable between giant lipoma and liposarcoma. The huge size of the swelling (more than 10 cm) with presence of enhancing solid component were amongst features of malignancy. However, parotid gland and submandibular gland can mimic non-adipose component in the imaging of our patient. Other characteristics suggestive of malignancy are presence of thick septa, presence of nodular and/or globular areas and decreased percentage of fat composition (3). Fortunately, occurrence of liposarcoma involving head and neck region is only up to 9% (4). Malignant transformation of lipomas to liposarcomas are rarely reported.

Diagnostic tests such as FNAC, incisional or excisional biopsy frequently failed to give clues of the different types of lipomas preoperatively due to the close resemblance in histologic appearance between the lipomas and the normal adipose tissue. Complete surgical excision is the most common modality of treatment. Despite not having pathological diagnosis confirmed, decision for complete surgical excision of the mass was made following high index of suspicion for liposarcoma based on the aggressiveness and extensiveness of the swelling. Besides that, impending airway obstruction, functional limitation and facial disfigurement impact which has been experienced by our patient warrant a very early surgical intervention.

With complete surgical excision, recurrence rate of less than 5% was reported (5). Possible complications after removal of giant lipomas include excessive scarring causing disfigurement, injury to adjacent structures such as facial nerve and the major vessels, hematomas, seromas, ecchymoses, infection, and fat embolus. In our case, we only observed a short duration of left marginal mandibular paresis which resolved within 3 months of postoperative period. Liposuction on the other hand is another available option, which may benefit in reducing scar formation and damage to surrounding structures as compared to the chosen method. Despite the benefits of liposuction method, it also comes with some limitations. In addition to the need for special instrumentation to carry out the procedure, limitations of surgical field visualization intraoperatively might impose a higher risk to this patient. This includes risk of injuries to the surrounding important structures, skin irregularities, paraesthesia and pigmental change. Besides, higher recurrence rate might also occur due to the closed approach.

CONCLUSION

In the present case, we had managed an extremely huge neck lipoma which is uncommon and surgically excised via external approach due to high index of suspicion towards liposarcoma; although the exact type of the lipoma was uncertain by means of diagnostic histological techniques. Limitation in the diagnostic histological confirmation made it difficult to differentiate benign or malignant disease prior to the operation. Therefore, proper preoperative imaging is crucial in decision planning of the surgical intervention. Overall, the surgery outcome was good and cosmetically accepted with no significant functional impairment.

REFERENCES

1. El-Monem MHA, Gaafar AH, Magdy EA. Lipomas of the head and neck: Presentation variability and diagnostic work-up. J Laryngol Otol . 2006 Jan;120(1):47–55.
2. Sanchez MR, Golomb FM, Moy JA, Potozkin JR. Giant lipoma: Case report and review of the literature. J Am Acad Dermatol. 1993 Feb 1;28(2):266–8.
3. Kransdorf MJ, Bancroft LW, Peterson JJ, Murphey MD, Foster WC, Temple HT. Imaging of fatty tumors: Distinction of lipoma and well-differentiated liposarcoma. Radiology. 2002;224(1):99–104.
4. Golledge J, Fisher C, Rhys-Evans PH. Head and neck liposarcoma. Cancer. 1995;76(6):1051–8.
5. Kenawi MM. 'Squeeze delivery' excision of subcutaneous lipoma related to anatomic site. Br J Surg. 1995;82(12):1649–50.