CASE REPORT

Massive lipoma of the posterior neck

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Accepted 8 February 2016

SUMMARY

Giant lipomas are a rare, benign cause of painless neck mass. We describe the case of a 63-year-old man with a giant lipoma of the left posterior neck, which presented with intermittent upper limb paraesthesia. Surgical excision confirmed the diagnosis of spindle-cell lipoma and resulted in complete resolution of neurological symptoms.

BACKGROUND

Lipomas are slow-growing, benign, soft tissue tumours that are typically asymptomatic and occur in the head and neck region in approximately 13% of cases.^{1 2} A lipoma is considered giant when it is >10 cm in any dimension or weighs more than 1000 g.³

CASE PRESENTATION

A 63-year-old man presented to the outpatient clinic, with a several year history of increasing left-sided neck mass, with concomitant neck pain and an inability to fully turn his head. He described neither dysphagia nor breathing difficulty but reported neurological symptoms in the form of intermittent paraesthesia in the C7-T1 dermatomes. There were no associated constitutional symptoms and the patient had no comorbidities.

Examination revealed a large, smooth, approximately 26×18×18 cm swelling emanating from the left posterior triangle, with no overlying skin changes. Flexible nasopharyngolaryngoscopy was unremarkable as was the remainder of the head and neck examination. There were no neurological deficits including the upper limbs.

INVESTIGATIONS

MRI elucidated a large neck mass involving the deep cervical fascia of the entire left posterior triangle with marked mass effect of both the sternocleidomastoid and trapezius muscles (figure 1). There was no associated lymphadenopathy and the mass extended onto the prevertebral fascia and well beyond the clavicle.

DIFFERENTIAL DIAGNOSIS

The appearances were consistent with lipoma, with the key differential being liposarcoma. Other differential diagnoses for large lateral neck lumps include lymphadenopathy (benign or malignant), lymphangioma, branchial cleft cyst and benign or malignant thyroid masses.

TREATMENT

The patient underwent left neck dissection and excision of the mass (figure 2). Intraoperatively, the

Figure 1 (A–D) MRI of left posterior triangle mass. (A) Axial T2-weighted; (B) axial T1-weighted; (C) coronal T2-weighted and (D) sagittal T2-weighted images.

mass was noted to be soft, friable and well-encapsulated, extending into the prevertebral plane and thus abutting the paravertebral muscles and brachial plexus. In addition, the accessory nerve, at risk during entry into the posterior triangle, was identified and preserved. Please note its distorted and superficial position, as this is a common pitfall in surgery of this region. The mass weighed 1732 g with dimensions of 30×20×20 cm. Plastic reconstruction was not required in this case. Excess skin was resected and primary closure performed.

OUTCOME AND FOLLOW-UP

Postoperatively, the patient demonstrated no neurology and was discharged. Histology of the mass

Figure 2 (A–D) Intra-operative images. (A) Preoperative view demonstrating large mass extending beyond clavicle (left sternocleidomastoid marked; dashed line with putative location of accessory nerve). (B) Superficial and displaced location of accessory nerve. (C) Enlarged left internal jugular vein with feeding vessels to giant lipoma. (D) Note separate encapsulated sac of giant lipoma.

To cite: Virk JS, Verkerk M, Patel H, et al. *BMJ Case Rep* Published online: [please include Day Month Year] doi:10.1136/bcr-2016-214502

confirmed a benign spindle-cell lipoma with no malignant features. Spindle-cell lipomas tend to be small (<2.5 cm) and occur in the posterior neck or upper back of elderly men, but have been reported in unusual sites (eg, larynx, orbit, hypopharynx) and demonstrate CD34 positive collagen-forming spindle cells on immunohistochemical studies.⁴

DISCUSSION

Giant lipomas are rare, particularly in the posterior neck, and the mechanism underlying such growth is not well understood, although some suggest trauma may play a role.^{1 2} The most important differential to rule out remains liposarcoma. Histopathological evidence of dedifferentiation are the hallmark of malignant change in a benign lipoma, and this occurs most commonly in sites of late presentation and diagnosis, such as the retroperitoneum.²

Management of these patients will typically involve surgical excision with preoperative cross-sectional imaging, and if it is

possible to attain a representative sample, core biopsy or fine-needle aspiration cytology. Owing to the encapsulated nature of lipomas, a combination of blunt dissection with preservation of surrounding structures is optimal.^{1–3} However, normal structures can be displaced (eg, accessory nerve), more prominent (eg, internal jugular vein) and at risk (eg, brachial plexus, phrenic nerve). Care must therefore be taken to appreciate this anatomy and avoid these pitfalls.

Acknowledgements The authors would like to thank Mr Amr Salem for assisting in managing the case, and Dr Nilu Wijesuriya for making the histological diagnosis. They also thank the histopathology departments at Royal London and Stanmore Hospitals, particularly to Dr Amary and Dr Tirabosco.

Contributors JSV, HP and KG managed the case. JSV, MV, HP and KG designed the case report, wrote the article, revised the draft and reviewed the final submission.

Competing interests None declared.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

Learning points

- ▶ Giant lipoma is a rare cause of a large painless neck mass.
- ▶ The key differential is well-differentiated liposarcoma.
- ▶ Management is typically surgical excision, but care must be taken to avoid key anatomical structures, which may be grossly displaced.

REFERENCES

- 1 Ryan MF, Allen B. A massive posterior neck mass: lipoma or something more sinister? *Case Rep Emerg Med* 2013;2013:205936.
- 2 Singh M, Saxena A, Kumar L, *et al*. Giant lipoma of posterior cervical region. *Case Rep Surg* 2014;2014:289383.
- 3 Copcu E, Sivrioglu N. Posterior cervical giant lipomas. *Plast Recon Surg* 2005;115:2156–7.
- 4 Eryilmaz M, Yigit T, Ozturk G, *et al*. Giant spindle cell lipoma of the posterior neck. *Dermatol Surg* 2007;33:1258–61.

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