

Research Article

Giant Cervical Lipomas: Case Series and Literature Review

Nogognan Ignace Lengane^{1, 6, *} , **Ibrahim Savadogo^{2, 6}** ,
Judica ð Marouruana Milkisedek Som ã^{3, 6} , **Ars ène Coulibaly^{4, 6}** ,
Noe Zaghre^{5, 7} , **Bertin Priva Ouedraogo^{5, 7}** 

¹Department of Otorhinolaryngology, Ouahigouya University Hospital, Ouahigouya, Burkina Faso

²Department of Anatomic Pathology, Ouahigouya University Hospital, Ouahigouya, Burkina Faso

³Department of Radiology, Ouahigouya University Hospital, Ouahigouya, Burkina Faso

⁴Department of Maxillofacial Surgery, Ouahigouya University Hospital, Ouahigouya, Burkina Faso

⁵Department of Otorhinolaryngology, Tingandogo University Hospital, Ouagadougou, Burkina Faso

⁶School of Medecine, L édea Bernard Ou édraogo University, Ouahigouya, Burkina Faso

⁷School of Medecine, Joseph Ki-Zerbo University, Ouagadougou, Burkina Faso

Abstract

Background: Giant lipomas of the neck are rare, slow-growing benign tumours of adipose tissue that may pose significant diagnostic and therapeutic challenges. Their large size may result in cosmetic deformities or compression of adjacent vital cervical structures, making early diagnosis and appropriate surgical management essential. Objective: This study aims to describe the clinical, radiological, and surgical features of giant cervical lipomas based on a case series, and to provide a brief review of the relevant literature. Methods: We retrospectively analysed six cases of giant cervical lipomas managed in the ENT Department of the Regional University Hospital of Ouahigouya. Data collected included demographic characteristics, clinical presentation, tumour dimensions, radiological findings, surgical techniques, and outcomes. Results: The patients, aged between 11 and 50 years, presented with slow-growing, painless cervical masses, with the largest tumour measuring 194 mm in its greatest diameter. The lipomas were predominantly located in the posterior cervical triangle. CT suggested a benign appearance of the tumours and provided detailed information about their extent and relationship to surrounding structures. All patients underwent complete surgical excision under general anaesthesia. No perioperative complications or recurrences were observed during the follow-up period. Conclusion: Giant cervical lipomas, though rare, should be considered in the differential diagnosis of large cervical swellings. Detailed clinical and radiological evaluation followed by meticulous surgical excision can ensure favourable outcomes. This case series emphasises the importance of early intervention and the role of multidisciplinary collaboration in management.

Keywords

Lipoma, Giant, Neck, Cervical Tumour

*Corresponding author: Ignace210@yahoo.fr (Nogognan Ignace Lengane)

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1. Introduction

Giant lipomas are defined as tumours measuring at least 10 cm in diameter or weighing 1,000 grams or more. They are rare compared to classical lipomas, which are typically smaller in size. Lipomas are the most frequently encountered soft tissue tumours [1-3]. Due to their substantial volume, giant lipomas pose particular challenges, especially with regard to the potential compression of adjacent structures and aesthetic concerns, complicating both their diagnosis and management [3, 4]. The study of such cases offers valuable insight into their clinical presentation, diagnostic approach, and appropriate therapeutic strategies.

2. Materials and Methods

We present a series of six cases of giant cervical lipomas. Patient characteristics, clinical and radiological findings, and treatment strategies were described.

3. Results

Patient age ranged from 11 to 50 years. No signs of vascular, nerve, or upper aerodigestive tract compression were observed. The tumours were located in the posterior cervical triangle in five patients and in the anterior cervical region in one patient. Clinical and radiological data are summarised in Table 1.

Table 1. Patient characteristics and imaging findings.

Case	Sex	Age (years)	Disease duration (months)	Size (largest diameter) mm
1	F	32	52	121
2	M	40	108	125
3	M	36	54	114
4	M	50	180	194
5	F	42	62	142
6	F	11	84	185

All patients underwent a cervical computed tomography (CT) scan, which showed well-demarcated, lobulated, hypodense, non-enhancing lesions (Figure 1).

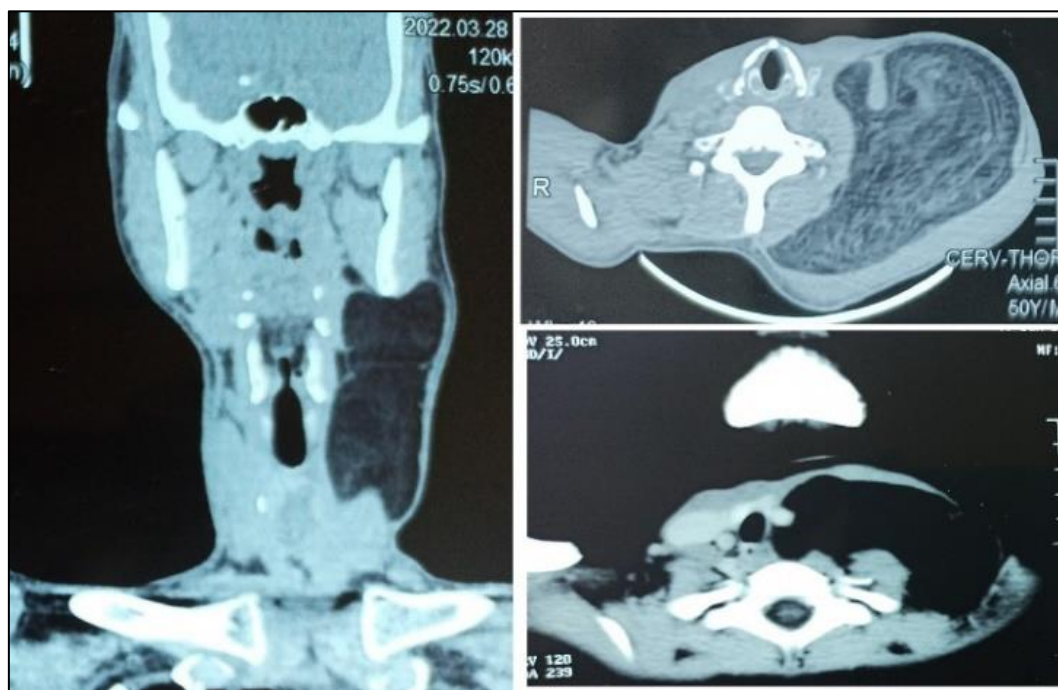


Figure 1. CT scan showing well-demarcated, hypodense, non-enhancing lesions in the neck consistent with a cervical lipoma.

All patients underwent complete surgical excision of the tumour via cervicotomy (**Figure 2**). No intraoperative complications were reported. Structures found in contact with the lipoma during surgery included the spinal accessory nerve, hypoglossal nerve, submandibular gland, thyroid gland, ca-

rotid artery, internal jugular vein, vagus nerve, and deep branches of the cervical plexus. Histological examination confirmed the diagnosis of lipoma in all cases. Long-term follow-up showed favourable outcomes in all patients.

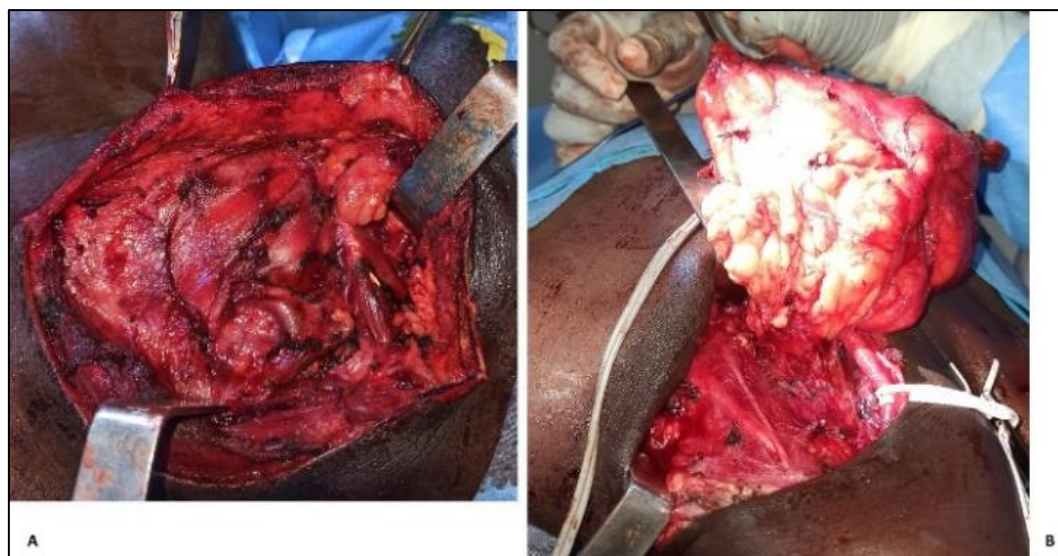


Figure 2. Intraoperative view of lipoma excision. (A) Contact with the submandibular region; (B) Exposure of the carotid artery, vagus nerve, and deep cervical plexus.

4. Discussion

Lipomas are among the most common mesenchymal tumours [2]. Most giant cervical lipomas develop slowly and remain asymptomatic, often presenting primarily as an aesthetic concern. However, in our cases, the substantial size of the tumours significantly affected patients' quality of life and physical appearance [2, 5, 6].

Lipomas typically occur during the fifth or sixth decades of life. Approximately 13% of cases are localised in the head and neck region, with a predominance in the posterior cervical area, as observed in our series. Anterior cervical involvement is rare, and extension into the thoracic cavity is even less frequent [4, 7-9]. Notably, all patients in our study were relatively young, which contrasts with the findings of Ndukwe et al., who reported a male predominance and presentation mostly in the fifth and sixth decades [10, 11].

Radiological imaging, particularly CT and magnetic resonance imaging (MRI) plays a critical role in the management of these tumours. CT is helpful in assessing the size and extension of the mass. Lipomas appear as homogeneous, well-defined, non-enhancing hypodense lesions. On MRI, they show hyperintensity on T1-weighted sequences and fast spin-echo T2-weighted sequences, providing better delineation [1].

A major diagnostic challenge lies in distinguishing a benign giant lipoma from a well-differentiated liposarcoma. Lesions larger than 10 cm, those located in deep planes, or showing rapid recent growth, raise suspicion of malignancy. Therefore, the possibility of a liposarcoma must always be considered preoperatively, as its management requires wider excision with sufficient margins [2, 12, 13].

Most lipomas are encapsulated, which facilitates their removal if dissection is performed along the correct surgical plane. However, caution is required as giant lipomas may distort normal cervical anatomy, increasing the risk of injury to adjacent neurovascular structures during surgery [2, 3, 14, 15].

5. Conclusions

Although rare, giant lipomas can pose significant diagnostic and surgical challenges due to their large size and proximity to critical anatomical structures. In this series of six patients, the lipomas were voluminous but did not cause clinical signs of compression. Our findings highlight the importance of thorough imaging, careful surgical dissection, and precise histological assessment to avoid complications. Further studies are warranted to refine management approaches for giant lipomas.

Abbreviations

CT Computed Tomography

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Author Contributions

Nogognan Ignace Lengane: Conceptualization, Writing – original draft

Ibrahim Savadogo: Data curation, Writing – review & editing

Judica ð Marouruana Milkisedek Som é Data curation, Writing – review & editing

Ars ène Coulibaly: Data curation, Writing – review & editing

Noe Zaghre: Writing – review & editing

Bertin Priva Ouedraogo: Validation

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Data Availability Statement

The data is available from the corresponding author upon reasonable request.

Conflicts of Interest

The authors declare no conflicts of interest.

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Research Field

Nogognan Ignace Lengane: rhinology, otology, head and neck surgery, laryngology, pediatric Otolaryngology

Ibrahim Savadogo: head and neck pathology, Breast Pathology, Liver Cancer, Prostate Cancer, Melanoma

Judica ð Marouruana Milkisedek Som é Oncologic Imaging, Interventional Radiology, Neuroimaging, Emergency Radiology, Tele-radiology

Ars ène Coulibaly: facial plastic surgery, salivary glands, Temporomandibular Joint Disorders, Facial Injuries and Deformities, Oral Head & Neck Cancer

Noe Zaghre: rhinology, Reconstructive and Plastic Surgery, head and neck surgery, laryngology, pediatric Otolaryngology

Bertin Priva Ouedraogo: rhinology, Reconstructive and Plastic Surgery, head and neck surgery, laryngology, pediatric Otolaryngology