

Giant and Complex Lipomas of the Cervical Region: A Series of 3 Cases and a Review of the Literature

N'faly Konate^{1*}, Idriss Arab¹, Warsama Isman Aden¹, Kassim Diarra¹, Sidibé Mamadou¹, Moussa Bourama Keita¹, Siriman Magassouba¹, Moussa Konate¹, Yaya Dembele¹, Ibrahim Bouare¹, Djibo Mahamane Diango², Mohamed Keita¹

¹ENT and Head and Neck Surgery Department, University Hospital Center "Gabriel Toure", Bamako, Mali

²Department of Anesthesiology, University Hospital Center "Gabriel Toure", Bamako, Mali

Email: *konatn2@gmail.com

How to cite this paper: Konate, N., Arab, I., Aden, W.I., Diarra, K., Mamadou, S., Keita, M.B., Magassouba, S., Konate, M., Dembele, Y., Bouare, I., Diango, D.M. and Keita, M. (2026) Giant and Complex Lipomas of the Cervical Region: A Series of 3 Cases and a Review of the Literature. *International Journal of Otolaryngology and Head & Neck Surgery*, 15, 377-384. <https://doi.org/10.4236/ijohns.2026.156034>

Received: July 5, 2026

Accepted: September 21, 2026

Published: September 24, 2026

Copyright © 2026 by author(s) and Scientific Research Publishing Inc. This work is licensed under the Creative Commons Attribution International License (CC BY 4.0). <http://creativecommons.org/licenses/by/4.0/>



Open Access

Abstract

Lipomas of the cervical region represent rare clinicopathological entities whose management is determined by their size, consistency, and relationship to deep anatomical structures. We report a series of three cases illustrating the clinical polymorphism and diagnostic diversity of cervical lipomas. **Case 1:** A 42-year-old female patient with a giant pre-thyroid and pancervical lipoma that has been developing for 10 years, compressible, extending above the hyoid bone with pharyngeal extensions, simulating a compressive goiter (dyspnea, dysphagia). **Case 2:** A 68-year-old man presenting with a cervical swelling that has been evolving for several years, totally asymptomatic and painless, but accompanied by localized cervical hypoesthesia due to stretching of the cutaneous nerve branches of the superficial cervical plexus. **Case 3:** A child presenting with a submental and submandibular swelling, in close contact with the submandibular gland, posing the differential diagnosis of congenital and adenopathic swellings in children. In all cases, imaging (ultrasound and cervical CT scan) confirmed the lipomatous nature of the lesion and the preservation of a pericapsular densitometric cleavage plane. Complete en bloc surgical excision resulted in a cure without functional or neurological sequelae.

Keywords

Giant Lipoma, Cervical Region, Goiter, CT Scan, Tracheal Compression, ENT Surgery

1. Introduction

Lipoma is the most common benign mesenchymal tumor in the body, but its lo-

cation in the cervicofacial region accounts for only 13% of cases [1]-[4]. It is classified as giant when its largest dimension exceeds 10 cm or its weight exceeds 500 grams.

In the cervical region, lipomas present a wide variety of diagnostic and surgical challenges depending on the patient's age and the lipoma's location:

1) In its pre-thyroid and pancervical form, its growth can mimic a large nodular goiter and cause severe visceral compressions [2] [3].

2) In its advanced form in the elderly, it can reach a considerable volume while remaining painless, revealing only cutaneous hypoesthesia by stretching of the superficial nerve branches [2]-[4].

3) In children, its submental and submandibular location requires it to be distinguished from congenital malformations (thyroglossal duct cysts, tonsillar cysts, lymphatic malformations) and lymphadenopathies [5].

We present a series of three observations illustrating this anatomoclinical diversity and the appropriate surgical excision strategy.

2. Clinical Observations

Observation 1:

A 42-year-old female patient, with no history of thyroid dysfunction, consulted for a cervical swelling that had been developing for more than 10 years.

On examination, the mass occupied the entire cervical region, extending from the suprahyoid region to the sternal notch (**Figure 1**). It was compressible and mobile during swallowing due to adherence to the thyroid capsule. The patient presented with clear signs of compression: exertional dyspnea, positional stridor, high dysphagia to solids, and jugular venous distension on the Valsalva maneuver. These symptoms prompted treatment with intravenous corticosteroids, without any real success. Thyroid function tests were normal.

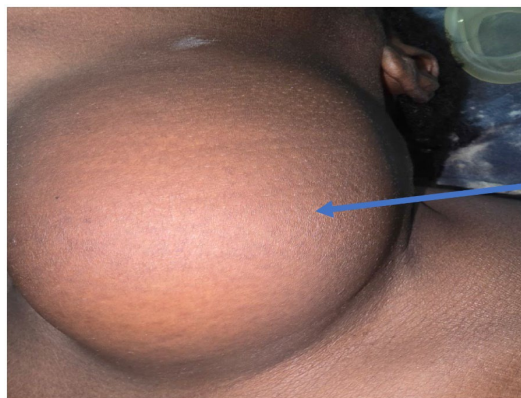


Figure 1. Giant fatty mass (negative density) pushing back the healthy thyroid gland, strongly deflecting the trachea and pushing back the jugulocarotid axis, with a pharyngeal extension rising above the hyoid bone.

A cervical CT scan revealed a giant fatty mass (negative density) displacing the healthy thyroid gland, severely deviating the trachea, and displacing the jugulo-

carotid axis, with a pharyngeal extension rising above the hyoid bone (**Figure 2**). The procedure was performed under general anesthesia with orotracheal intubation. En bloc resection via cervicotomy required meticulous dissection just anterior to the anterior surface of the hypopharynx and release of thyroid and vascular adhesions along the densitometric cleavage plane (**Figures 3-5**). The specimen measured 16 cm in its largest diameter and weighed 710 grams. Relief of the compressive symptoms was immediate. Histopathological examination revealed lesions composed of mature adipocytes without cytological atypia, exhibiting localized fibrous changes (**Figure 6**). The postoperative course was straightforward with no functional sequelae. No recurrence was noted after 1 year of follow-up.

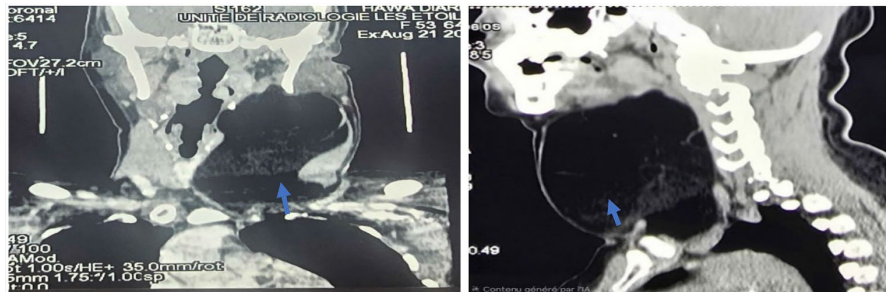
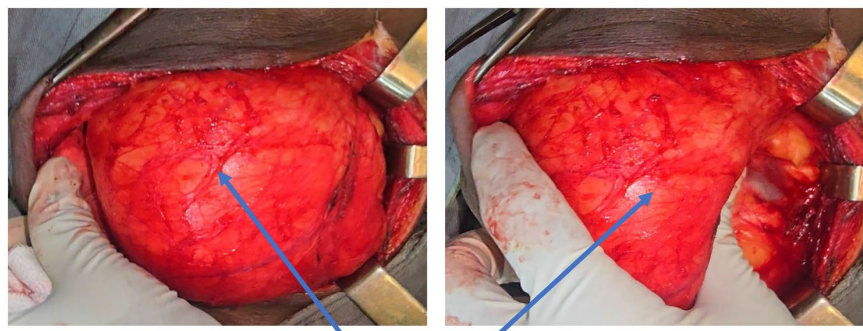
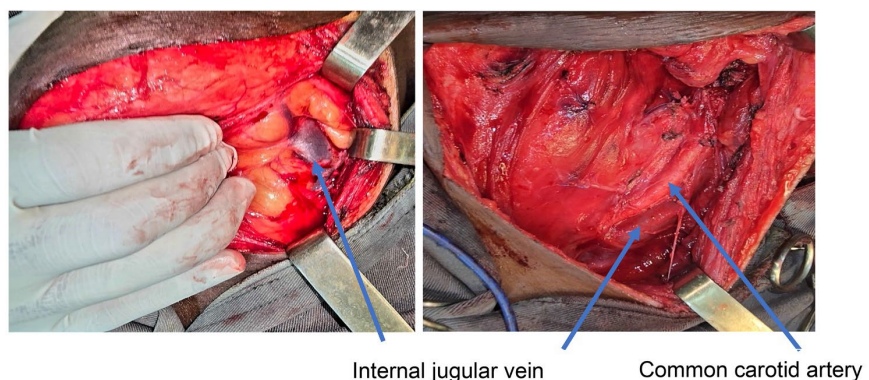


Figure 2. Well encapsulated fat density mass, repressing adjacent structures without critical tracheal stenosis, with a continuous densitometric cleavage line.



Fatty swelling

Figure 3. Intraoperative view of the mass after flap dissection.



Internal jugular vein

Common carotid artery

Figure 4. Dissection of the jugulocarotid axis.

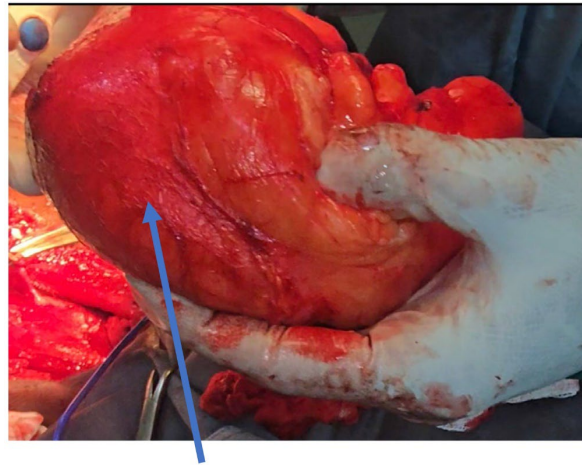


Figure 5. Operating room specimen.

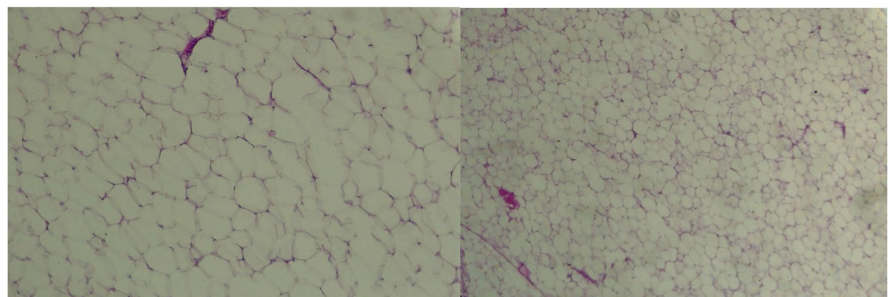


Figure 6. Lesions composed of mature adipocytes without cytonuclear atypia, exhibiting focal fibrous changes.

Observation 2: A 68-year-old patient consulted for a large cervical swelling that had been developing very gradually for several years.

On physical examination, the mass was well-defined, firm but supple, non-reducible, and completely painless. There were no signs of respiratory (no dyspnea) or digestive (no dysphagia) compression. A detailed semiological examination revealed the only abnormality: slight cutaneous hypoesthesia over the cervical region, secondary to chronic distension and widespread compression of the sensory branches of the superficial cervical plexus (particularly the greater auricular nerve and the transverse cervical nerve).

A cervical CT scan confirmed the presence of a lipomatous mass. The lateral cervical lesion was well encapsulated, displacing adjacent structures without critical tracheal stenosis, and exhibiting a continuous densitometric cleavage rim (**Figure 7**). En bloc surgical resection was performed without cleavage difficulties, allowing for a progressive recovery of skin sensation in the months following the procedure (**Figure 8**). The specimen measured 11 cm in its largest diameter and weighed 510 grams. The anatomopathological examination revealed lesions made up of areas of regular adipocytes separated by fibrous tissue without cytonuclear atypia. The postoperative course was uneventful with no functional sequelae. No recurrence was noted after 1 year of follow-up.

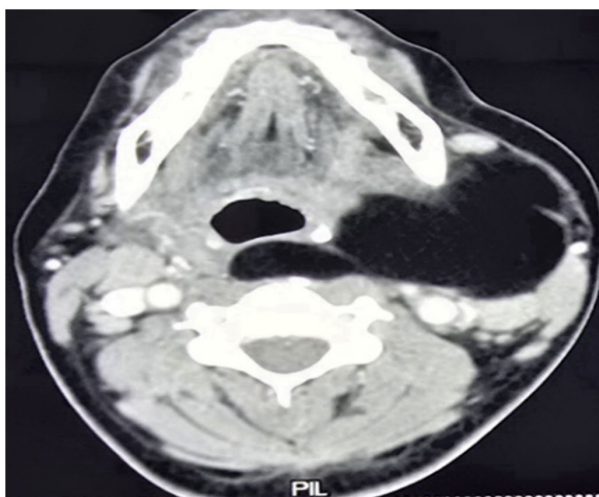
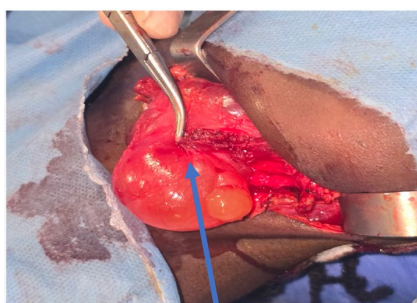


Figure 7. Laterocervical mass of fatty density, extending from the suprahyoid region to the suprasternal notch.



Fat mass



Closure with separate sutures

Figure 8. En bloc surgical excision.

Observation 3: A 10-year-old female child presented for consultation with a submental and submandibular swelling that had been progressively developing for 5 years, initially suggesting lymphadenopathy or a congenital cystic malformation.

On examination, the swelling occupied the submental region and extended laterally into the submandibular space. The mass was soft, painless, and non-inflammatory.

Ultrasound and cervical CT scans confirmed the diagnosis, revealing a homogeneous, fatty-looking mass in direct contact with the submandibular gland, which it displaced without invading. The surgical procedure consisted of a submandibular approach. Step-by-step dissection allowed separation of the lipoma from the submandibular gland capsule and the anterior belly of the digastric muscle, while preserving the marginal branch of the facial nerve and the submandibular gland itself (**Figure 9**). The specimen measured 9 cm in its longest diameter and weighed 490 grams. Anatomopathological examination revealed lesions made up of areas of regular adipocytes separated by fibrous tissue without cytonuclear atypia (**Figure 10**). The postoperative course was uneventful with no functional se-

quela. No recurrence was noted after 1 year of follow-up.

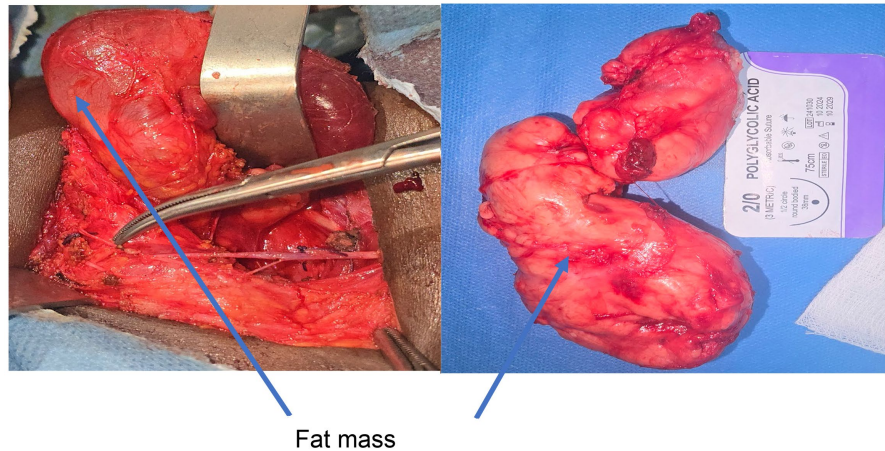


Figure 9. Operative view of the submandibular compartment during lipoma dissection.

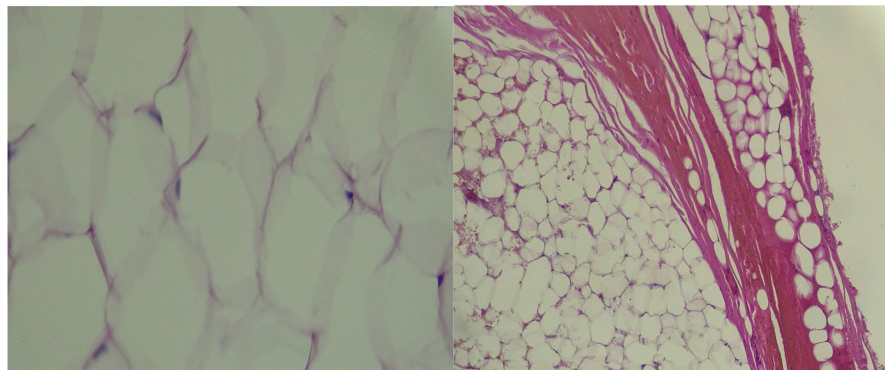


Figure 10. Areas of regular adipocytes separated by fibrous tissue, without cytonuclear atypia.

3. Discussion

This series highlights the extreme semiological and topographic variability of cervical lipoma depending on age and local anatomical constraints. Cervical lipoma is known for its slow and asymptomatic progression. However, depending on its location and size, it can lead to severe mechanical or functional complications.

Dyspneic forms (Case 1): In our first case, the pancervical and pre-thyroid development with pharyngeal extension simulated a compressive goiter with dyspnea and stridor. This asphyxiating or dyspneic nature of giant neck lipomas is well documented in Malian and African literature. Ag Med Elmehdi Elansari *et al.* [6] described a similar presentation of a dyspneic giant neck lipoma, highlighting the relative urgency of surgical intervention given the threat to the upper airway.

Functional and orthopedic impact (Case 2): While our second case resulted in cutaneous hypoesthesia due to distension of the superficial cervical plexus, the extreme volumes of these tumors can also lead to postural repercussions. Fofana and Mallé [7] reported a case in Bamako of a giant cervico-dorsal lipoma causing

a significant sensation of heaviness and a malposition of the cervical spine, confirming the mechanical impact on spinal alignment.

Pediatric and Infant Forms (Case 3): Cervical lipomas in children are rare, representing less than 1% of benign pediatric tumors. Niang *et al.* [5] illustrated the extreme rarity of this entity by reporting a giant laterocervical lipoma in a 6-month-old infant. In this age group and in children, the main challenge lies in the differential diagnosis with congenital cystic malformations (thyroglossal duct cyst, cystic lymphangioma) or submandibular lymphadenopathy. Furthermore, the proximity of the submandibular gland and the marginal branch of the facial nerve necessitates ultra-conservative pericapsular dissection.

As Elakhiri *et al.* [1] and all the authors in the literature [1]-[7] remind us, computed tomography (CT) imaging is the cornerstone of the diagnostic-surgical strategy:

Positive diagnosis: It confirms the pure lipomatous nature in the presence of a homogeneous mass of characteristic negative density (generally located between -50 and -150 Hounsfield Units) [1]-[5].

Mapping of relationships: It specifies the extent of the mass in relation to the jugulo-carotid vascular-nerve axes, the upper aerodigestive tract and the glandular compartments [1].

Operative safety: The systematic visualization of a pericapsular densitometric cleavage plane allows, in all cases, for a safe en bloc dissection, permitting the immediate removal of compressive signs [6] [7], the relief of nerve or joint constraints [5]-[7] and the preservation of regional noble structures [1].

4. Conclusion

Cervical lipomas present with significant clinical variability. Whether they mimic a compressive goiter due to their pharyngeal extensions, present as isolated cutaneous hypoesthesia in the elderly, or imitate a congenital submental mass in children, CT imaging remains the cornerstone of diagnosis. Demonstrating the pericapsular densitometric cleavage plane allows for safe, en bloc surgical excision, ensuring symptom relief and avoiding the loss of surrounding vital structures.

Informed Consent

It was a purely scientific work aimed at improving the grip of the in charge in the field of otology; the ethical standards were strictly followed for each study participant with their informed consent, including parental consent for pediatric cases and respect for anonymity.

Author Contributions

Concept—N’faly Konate; Design—N’faly Konate; Kassim Diarra; Idriss Arab; Supervision—Kassim Diarra; Idriss Arab Djibo Mahamane Diango, Mohamed Keita; Resources—N’faly Konate; Kassim Diarra; Sidibé Mamadou; Materials—N’faly Konate; Sidibé Mamadou; Mohamed Keita; Data Collection and/or Pro-

cessing—N’faly Konate; Kassim Diarra; Moussa Bourama Keïta; Analysis and/or Interpretation—N’faly Konate; Literature Search—N’faly Konate; Kassim Diarra; Writing Manuscript—N’faly Konate; Critical Review—N’faly Konate; Kassim Diarra; Idriss Arab; Warsama Isman Aden; Siriman Magassouba, Moussa Konate, Yaya Dembele, Ibrahim Bouare, Djibo Mahamane Diango, Mohamed Keita.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

References

- [1] Elakhiri, M., Darouassi, Y., Oukabli, M., Jahidi, A. and Benariba, F. (2021) Prise en charge d’un lipome cervical géant: Rapport de cas et revue de la littérature. *Pan African Medical Journal*, **39**, Article 100. <https://doi.org/10.11604/pamj.2021.39.100.12727>
- [2] Diallo, A.G., et al. (2024) Lipome cervico-thoracique géant et compressif: À propos d’un cas. *JACCR Africa*, **8**, 304-308. <https://doi.org/10.70065/24JA84.010L013012>
- [3] Kadyogo, M., Compaoré, D.A., Ouédraogo, A.S., Ouoba, J., Bayala, D., Meda, C.N., Ouédraogo, A.S. and Sereme, M. (2022) Giant Cervical Lipoma: Report on One Case in Ouagadougou, Burkina Faso. *Médecine Tropicale et Santé Internationale*, **2**, mtsi.v2i2.2022.234. (In French)
- [4] Jerbi, S., Chouchane, N., Salem, A.B., Farik, S., Zayeni, O. and Hamza, H.A. (2017) Localisations rares des lipomes de la tête et du cou. *Journal of Neuroradiology*, **44**, 114. <https://doi.org/10.1016/j.neurad.2017.01.105>
- [5] Niang, C.D., Sarr, M.C., Ba, M., Toko, B., Barry, M., Fall, F., Niang, F., Thiam, I. and Diouf, M.S. (2025) Giant Laterocervical Lipoma in a 6-Month-Old Infant: A Case Report. *Pan African Medical Journal*, **51**, Article 31. (In French)
- [6] Ag Med Elmehdi Elansari, M.S. (2023) Giant Dyspnea-Causing Neck Lipoma. *Journal de Chirurgie et Spécialités du Mali*, **2**, 44-47. <https://www.revues.ml/index.php/jcsm/article/view/2453>
- [7] Fofana, Y. and Malla, M. (2016) Lipome géant cervico-dorsal avec lourdeur et attitude vicieuse du rachis cervical: À propos d’un cas à Bamako (Mali). *Pan African Medical Journal*, **25**, Article 148. <https://doi.org/10.11604/pamj.2016.25.148.10715>