

CASE REPORT

Concurrent Epidermal Inclusion Cyst and Lipoma of the Cervical Region: A Rare Coexistence of Two Common Benign Lesions: A Case Report

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ABSTRACT

Background: Epidermal inclusion cysts and lipomas are among the most common benign soft-tissue lesions encountered in the cervical region. However, their simultaneous occurrence at the same anatomical site is uncommon and may pose diagnostic challenges, particularly when preoperative investigations suggest a single pathology.

Case Presentation: We report the case of a 48-year-old male who presented with a painless, gradually enlarging swelling in the lateral aspect of the neck. Clinical examination revealed a soft, mobile mass without overlying skin changes. Fine needle aspiration cytology (FNAC) suggested a single benign lesion. However, contrast-enhanced computed tomography (CT) of the neck demonstrated two distinct adjacent lesions, raising suspicion of dual pathology. The patient underwent complete surgical excision of the mass. Histopathological examination confirmed an epidermal inclusion cyst overlying a lipoma. The postoperative course was uneventful, and no recurrence was observed during follow-up.

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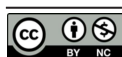
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Conclusion: This case underscores the diagnostic limitations of FNAC in complex neck masses and highlights the importance of radiological imaging in preoperative assessment. Histopathological evaluation remains the gold standard for definitive diagnosis and exclusion of malignancy. Complete surgical excision is curative, with an excellent prognosis.

KEYWORDS:

• Epidermal Inclusion Cyst • Lipoma • Cervical Mass • FNAC

INTRODUCTION

Benign soft-tissue masses of the cervical region are frequently encountered in otolaryngology practice, with lipomas and epidermal inclusion cysts (EICs) representing two of the most prevalent entities. Although both lesions are common individually, their synchronous occurrence within the same anatomical compartment is distinctly rare and sparsely reported in the literature.¹ The coexistence of these lesions may obscure clinical assessment, particularly when they present as a single, long-standing, gradually enlarging neck swelling.

Lipomas are benign mesenchymal neoplasms composed of mature adipocytes and constitute the most common soft-tissue tumors in adults. They typically present as well-defined, soft, mobile, and painless subcutaneous masses. While frequently observed in the posterior neck and trunk, lipomas may arise in any region containing adipose tissue.² Deep-seated variants, particularly those located beneath fascial layers, may remain clinically inconspicuous until significant enlargement occurs.

Epidermal inclusion cysts are benign keratin-filled cystic lesions that originate from proliferation of epidermal elements

within the dermis. Proposed mechanisms include follicular obstruction, traumatic implantation of epidermal fragments, and iatrogenic causes. Histologically, these cysts are lined by stratified squamous epithelium with a well-formed granular layer and contain laminated keratinous material.³ Secondary inflammation or rupture may alter their clinical characteristics, resulting in erythema, tenderness, or architectural distortion.

When two morphologically distinct lesions occur in close proximity, accurate clinical differentiation becomes challenging. Imaging plays a pivotal role in distinguishing adipose from cystic pathology and in defining lesion depth and anatomical relationships. Reporting such rare coexistence contributes to improved diagnostic awareness and surgical planning. We describe an unusual case of a dual benign cervical pathology consisting of a superficial epidermal inclusion cyst and an underlying lipoma.

CASE

A 48-year-old male presented with a progressively enlarging right-sided cervical swelling of five years' duration. The mass was associated with mild discomfort but no dysphagia, odynophagia, or constitutional symptoms.



Figure 1: Swelling in right side of neck with altered skin colour and architecture (due to local herbal application by patient himself)

The patient reported prior application of a topical herbal preparation, after which the overlying skin demonstrated visible architectural distortion. On examination,

the lesion was mobile relative to deeper structures; however, the overlying skin was non-pinchable and irregular.

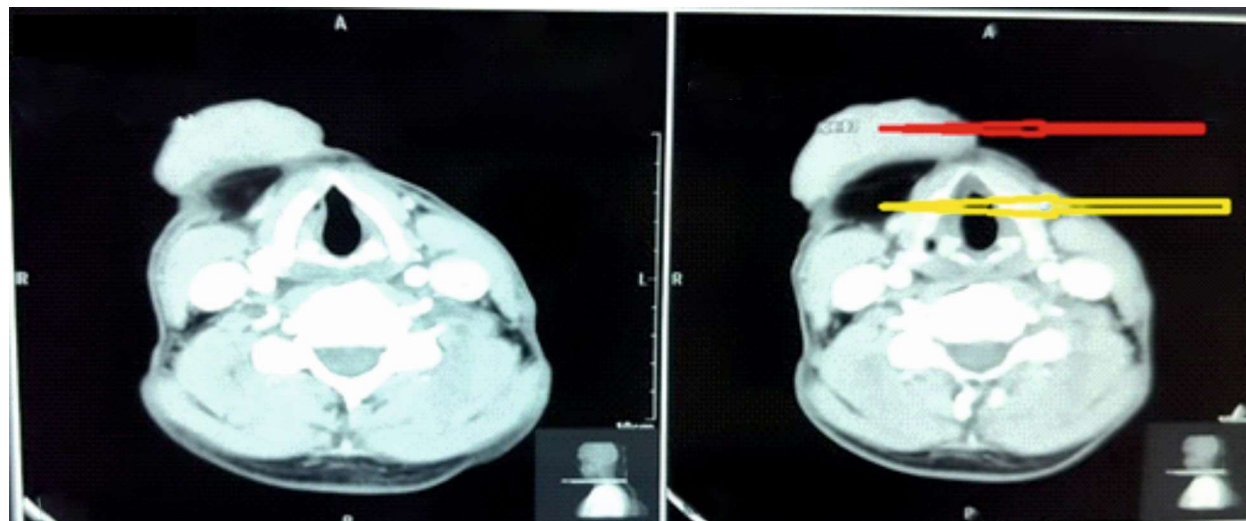


Figure 2: CECT neck axial cut showed 2 swelling: one is above platysma (*epidermal inclusion cyst: marked as red arrow*) and another was below the subplatysmal plane (*Lipoma: marked as yellow arrow*)

Fine-needle aspiration cytology suggested features of an inflamed cystic lesion. Given the lesion's size and chronicity, contrast-enhanced computed tomography (CECT) of the neck was performed. Imaging revealed two discrete masses: a superficially located enhancing soft-tissue lesion confined to the cutaneous plane and a deeper, well-defined fat-attenuation mass situated beneath the platysma muscle.



Figure 3: Swelling below subplatysmal plane: lipoma (held in babcock forcep)

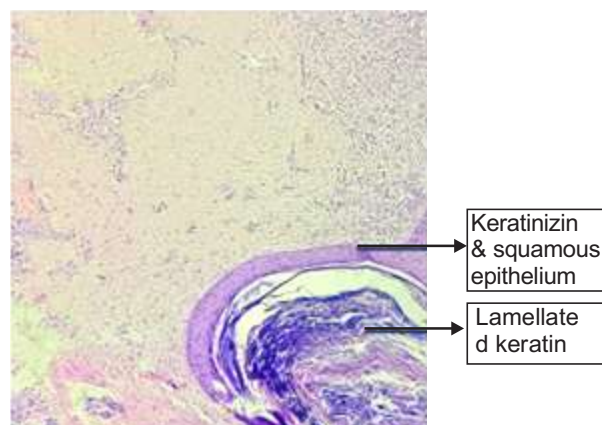


Figure 4 A: Histopathology of Epidermal Inclusion Cyst showing Keratinizing squamous epithelium and lamellated keratin (H & E 400 X)

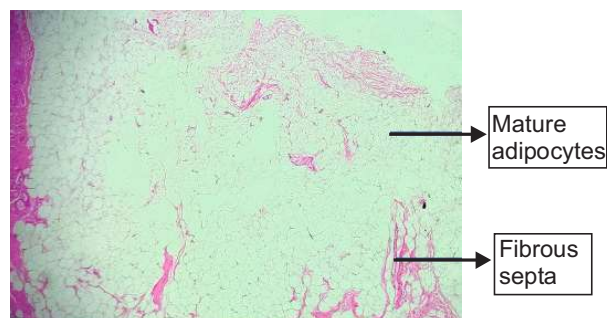


Figure 4 B: Histopathology of Lipoma showing mature adipocytes (H & E 400 X)

Complete surgical excision was undertaken under general anesthesia. The superficial

lesion, along with the altered skin, was excised first, followed by removal of the subplatysmal adipose mass in the same operative session. Layered wound closure was performed.

Histopathological evaluation confirmed an inflamed epidermal inclusion cyst and a lipoma. Postoperative follow-up at 3, 6, and 12 months showed no recurrence.

DISCUSSION

The simultaneous presence of an epidermal inclusion cyst and a lipoma within the same cervical region represents an unusual clinical scenario. Although each lesion is independently common, their anatomical concurrence is rarely documented.¹ Whether such coexistence is purely incidental or influenced by shared local factors remains uncertain; current evidence favors incidental association.

Epidermal inclusion cysts enlarge gradually due to progressive keratin accumulation. Inflammatory changes may produce induration, tenderness, and cutaneous distortion, potentially masking underlying pathology.³ Lipomas, conversely, consist of mature adipose tissue and typically exhibit homogeneous fat density on imaging. Deep lipomas may remain clinically undetected when overshadowed by a more superficial lesion.²

In the present case, prior application of a topical herbal agent resulted in cutaneous alteration, complicating clinical evaluation. FNAC identified only the cystic component, underscoring the limitation of cytology in multilayered or anatomically distinct lesions. Cross-sectional imaging was therefore essential. CECT demonstrated clear fat attenuation in the deeper lesion and enhancement in the superficial cystic component, enabling accurate preoperative mapping.

Kurihara *et al.* reported a comparable case involving an epidermal cyst with an underlying lipoma in the dorsal region, emphasizing the importance of imaging to avoid incomplete excision.¹ Similar to their observation, the deeper lipoma in our case might have been overlooked without radiological assessment.

Histopathological confirmation remains the definitive diagnostic modality. Complete excision of both lesions is curative, with low recurrence rates when adequate margins are achieved. Awareness of such dual pathology is important for clinicians managing chronic cervical swellings, particularly when clinical findings appear discordant.

CONCLUSION

Concurrent epidermal inclusion cyst and lipoma within the cervical region constitute a rare but clinically significant dual pathology. This case underscores the importance of comprehensive evaluation, including appropriate imaging, in the assessment of long-standing or atypical neck masses. Precise anatomical delineation facilitates complete excision and minimizes recurrence risk.

Declarations

Ethics approval and consent to participate: Ethical approval was not required for this study, as it represents a single case report based on routine clinical care. The patient was managed according to standard institutional protocols and clinical practice guidelines. Written informed consent was obtained from the patient(s) prior to participation.

Consent for publication: Written informed consent was obtained from the patient for publication of clinical details and accompanying images. All reasonable efforts have been made to ensure that the patient's identity remains confidential, and no identifying information has been disclosed in this manuscript.

Availability of data and material: The datasets generated and/or analyzed during the current study are available from the corresponding author on reasonable request.

Competing interests: The authors declare that they have no competing interests.

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Authors' contributions: All author contributed to this study. Patients selection and preparation was done by TG and NA. Data collection and analysis was done by TG, NY. Pathology report collected by SKK and VK. Manuscript was written by TG.

REFERENCES

1. Kurihara Y, Kawamura K, Furue M. A case of epidermal cyst with underlying lipoma on the back: A rare presentation. *Case Rep Dermatol*. 2021;13(1):171-175. doi:10.1159/000513474.
2. Kransdorf MJ. Benign soft-tissue tumors in a large referral population: distribution of specific diagnoses by age, sex, and location. *AJR Am J Roentgenol*. 1995;164(2):395-402. doi:10.2214/ajr.164.2.7839969.
3. Zito PM, Scharf R. Epidermoid cyst. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2024 [cited 2026 Feb 18].
4. Bancroft LW, Kransdorf MJ, Peterson JJ, O'Connor MI. Benign fatty tumors: classification, clinical course, imaging appearance, and treatment. *Skeletal Radiol*. 2006;35(10):719-733. doi:10.1007/s00256-006-0189-y.
5. Hoang VT, Trinh CT, Nguyen CH, Chansomphou V, Chansomphou V, Tran TTT. Overview of epidermoid cyst. *Eur J Radiol Open*. 2019;6:291-301. doi:10.1016/j.ejro.2019.08.003.
6. Wu JS, Hochman MG. Soft-tissue tumors and tumorlike lesions: a systematic imaging approach. *Radiology*. 2009;253(2):297-316. doi:10.1148/radiol.2532081199.