

Huge occipital spindle cell lipoma: a case report



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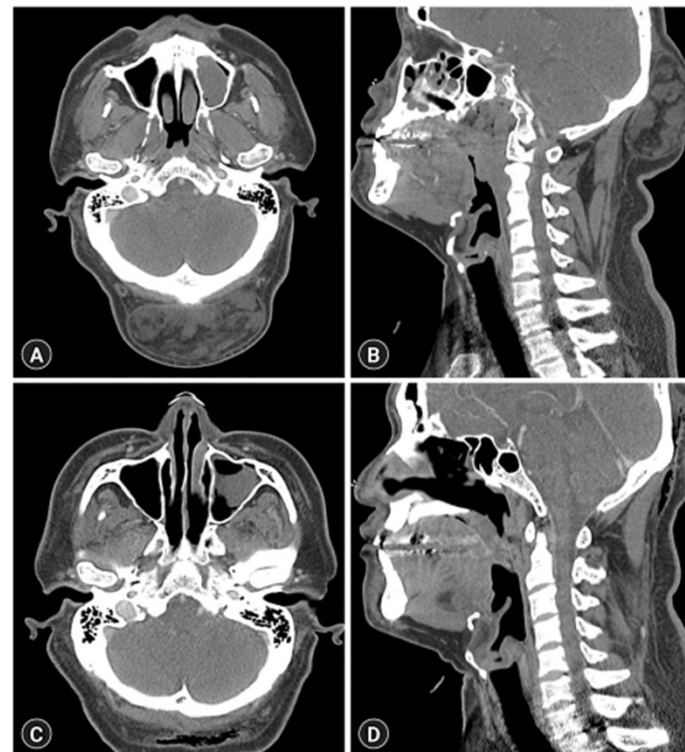
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Introduction

- Spindle cell lipoma (SCL) is an uncommon benign subcutaneous adipose tissue tumor.
- They most commonly appear as a slow-growing and painless mass in middle-aged men's shawl region (shoulder, posterior neck, and upper back) (10:1 male-to-female ratio) at an average size of 4–5 cm.
- Because the histological finding is similar to malignant lipomatous tumors such as liposarcoma, a precise diagnosis of SCL is essential, especially when they appear as larger masses.
- We present a rare case of a huge-sized occipital and upper posterior neck SCL successfully removed through local excision.

Case report

- A 49-year-old man complained of a mass in the occipital area that had grown slowly for 4 years.
- On physical examination, we could check a huge palpable and movable mass that was elastic and soft.
- Computed tomography of his neck revealed a 10-×9.5-cm-sized, well-circumscribed, non-enhancing solid and fatty mass in the occipital area/posterior neck.
- It was well encapsulated and dissected from the adjacent tissue. There were no adhesions to adjacent tissues or vascular involvement.



Case report

- The mass was 10×9.5×5 cm and was removed entirely without complications.
- On histological examination, H&E stained sections showed the lesion consists of mature adipose tissue, bland spindle cells, and ropey collagen with myxoid stroma. Immunostaining showed spindle cells for CD34-positive, S100 protein-negative, retinoblastoma 1 (Rb1) absent, and alpha-smooth muscle actin-negative. Based on these findings, a histopathological diagnosis of SCL was given.

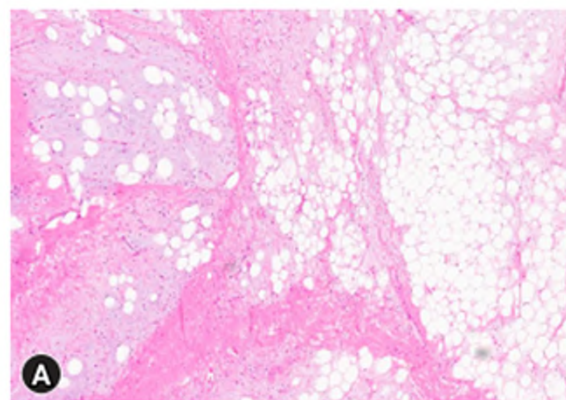


Fig. 4. (A) The lesion consisted of mature adipose tissue, bland spindle cells, and ropey collagen with myxoid stroma (hematoxylin and eosin, ×200). (B) The spindle cells showed immunoreactivity for CD34 (immunohistochemistry staining, ×200).

Discussion

- Lipomas are slow-growing, benign adipose tumors mainly occurring in the head and neck subcutaneous tissues.
- Usually, lipomas are asymptomatic, can be detected incidentally, and do not need treatment.
- SCL is an uncommon benign histopathological variant of lipoma that Enzinger and Harvey first described in 1975 based on its characteristic histological findings characterized by collagen-rich spindle cells taking over adipocytes.
- SCL commonly occurs between 40 and 60 years old and is more prevalent in males.
- Most SCL involves the upper back, shoulders, and posterior neck subcutaneous tissue. In rare cases, these tumors occur in other sites, including the face, oral cavity, and extremities.
- In a study of 395 SCL patients, Ko et al. reported that 331 (86%) occurred in men; 53 (14%) in women. SCL in women frequently occurs outside the shawl region compared with men and at a slightly younger patient age than men (median age 51 years vs. 64 years).
- Grossly, SCL is a well-circumscribed, oval mass in the subcutaneous tissue and has a yellow-tan cut surface with grey-white and myxoid foci.
- The texture is similar to typical lipomas, although it may be somewhat firmer, especially if the spindle-cell component is more dominant.

Discussion

- Microscopically, SCL is characterized by mature adipocytes, bland spindle cells in parallel bundles, and hyalinized rope-like collagen fibers (ropy collagen).
- On immunohistochemistry, the spindle cells exhibit CD34, and they are negative for S100 protein.
- Loss of nuclear Rb1 protein expression is also a characteristic finding.
- On the other hand, liposarcoma, which must be differentiated from SCL, is essentially CD34-negative and S100-positive.
- Both SCL and pleomorphic lipomas exhibit losses of chromosomes 13q and/or 16q-losses considered characteristic for this family of lipomas.
- Most SCLs are composed of varying proportions of adipose tissue and spindle cells, which can lead to various imaging findings, and it is very rare for either to be predominant.
- The diagnosis of spindle-cell lipoma should be considered when one encounters a well-defined, heterogeneous, fatty mass in the subcutis of a middle-aged man, especially when the mass is localized to the posterior neck.
- Total excision, including tumor capsules, is considered the primary treatment for SCL.

Conclusions

- We present an unusual case of a huge-sized SCL on the occipital area and the upper posterior neck.
- Because of histological similarities, clinicians must confirm immunochemical findings when encountering spindle cell-associated soft tissue tumors to avoid misdiagnosis after total excision.