

Spindle Cell Lipoma: An Unusual Lipoma Variant

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Dear Sir,

Spindle cell lipoma (SCL) is an unusual lipoma variant that constitutes about 1.5% of all adipocytic tumors.^[1] It usually occurs in men, aged 45 to 70 years of age and commonly occurs in the shoulder and neck region.^[2] It may be confused with other variants of lipoma on histopathological examination. We report one such interesting case.

The patient, a 50 years old man, presented with a soft tissue swelling on the upper back for the last 4 years. The swelling was firm in consistency and mobile. The swelling was excised in toto. On gross examination, it was grey-white in color, well encapsulated and firm in consistency.

Microscopy showed a population of round to ovoid spindle cells interspersed with short parallel fibrocollagenous bundles surrounded by benign adipocyte cell clusters. Bundles of dense ropy collagen were observed (Fig 1).

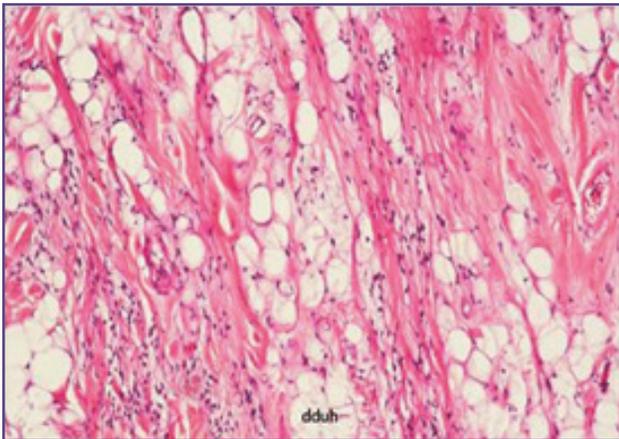


Fig. 1a: Microphotograph of the tumor showing adipocytes and spindle cells admixed with a lymphocytic infiltrate (H&E, x100).

There was also an infiltrate of mast cells and lymphocytes. On immunohistochemistry, the tumor was CD34 (fig 2) and S100 positive. This picture was suggestive of spindle cell lipoma.

As per the Stanford Diagnostic Criteria,^[3] SCL is defined as a predominantly subcutaneous lesion that is composed of mature fat and bland spindle cells. It has a variable amount of adult fat but lipoblasts are absent. Spindle cells are bland looking with scanty cytoplasm and elongated nuclei without mitotic figures. Bundles of dense ropy collagen are typically observed, as in our case. Spindle cells are typically CD34 positive, often extensively and arranged in short parallel arrays, termed “the school of fish” appearance. Even recently, there are reports describing SCL in the usual location,^[4] although it is also being reported in other anatomical sites.

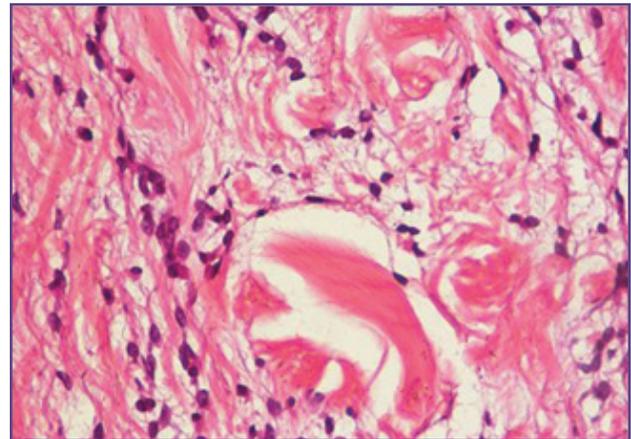


Fig. 1b: Microphotograph of the tumor showing ropy collagen and spindle cells (H&E, x400).

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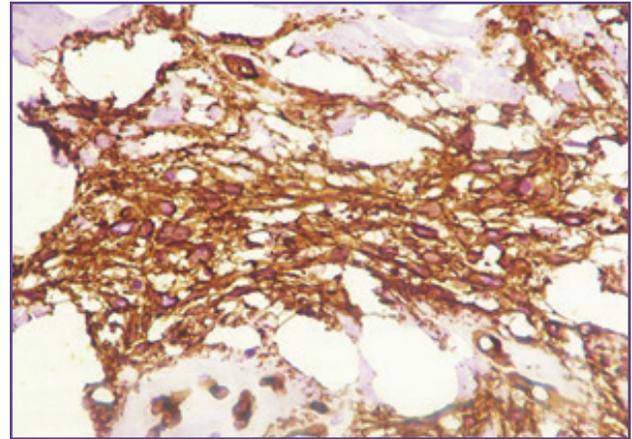
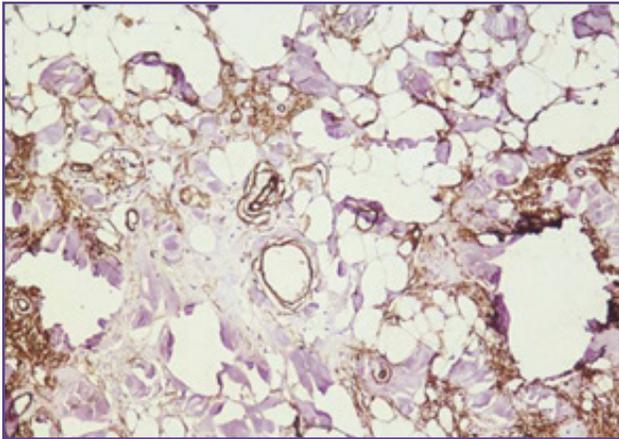


Figure 2 a, b – Microphotograph showing CD34 positive spindle cells (x100, x400).

Mitotic activity, pleomorphism and the amount of vasculature should be accurately evaluated to rule out malignancy. SCL is composed of bland spindle cells with minimal pleomorphism and mitoses. These bland features are important in differentiating SCL from a liposarcoma.

SCL may sometimes be confused with other soft tissue tumors. The features differentiating it from other lipoma variants are described in table 1.

Table 1 – Spindle cell lipoma compared with fibrolipoma and myolipoma

	Spindle cell lipoma	Fibrolipoma	Myolipoma
Location	Mainly upper back and neck	Variable location	Mainly pelvic area
Morphology	Spindle cell component prominent in a school of fish arrangement.	Spindle cell component absent	Spindle cell with tapered cytoplasm
CD34 status	CD34 positive	CD34 negative	CD34 negative
Collagen	Ropy collagen present	Ropy collagen absent	Ropy collagen absent
Actin	Actin negative	Actin negative	Actin positive

Spindle cell lipoma is an uncommon variant of lipoma. Variation in the fibrous and myxoid elements can be a source of diagnostic confusion. The presence of CD 34 positive spindle cells and S100 positive adipocytes helps in confirming the diagnosis. Local recurrence after resection is rare. Hence distinguishing it from malignant variants is important.

Acknowledgements

None

Funding

None

Competing Interests

None declared

References

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