A Case of Cervical Lipoma-related Radiculopathy

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Dear Editor,

A 52 year-old female patient presented to our hospital with numbness and loss of strength in left arm. She mentioned no chronic diseases and that her complaints had continued for 3 to 4 years. Routine hemogram examination, blood glucose level and other routine biochemical parameters were normal. The Doppler ultrasonography applied to eliminate vascular pathologies did not reveal any arterial or venous pathology. An extraforaminal mass lesion at C3-4 level on the left side was found in the magnetic resonance imaging (MRI) carried out for the prediagnosis of cervical disc hernia. The lesion depicted hyperintense character on T1 and T2 weighted sequences and loss of signal on fat-suppressed sequence. In addition, there was muscle atrophy and nerve root pressure at extraforaminal level (Figure 1).

Lipomas are mesenchymal neoplasms with benign nature originating from mature fat cells. They are rare in cervical region and may cause cosmetic issues if localized superficially, while

Figure 1. Sagittal T1 (a) and T2 (b) weighted images showing hyperintense lipoma. Hypointensity in the lipoma on a fat-suppressed axial image (d) and compression in the nerve root (c, d black arrow)
deep-seated lipomas may cause pressure on adjacent organ (1).
There are various subtypes of lipoma such as simple lipoma,
fibrolipoma, atypical lipoma, myxoid lipoma, infiltrating lipoma,
angiolipoma and myelolipoma (2). Those with Intermuscular and
intramuscular localizations are also known as infiltrating lipomas.
Intramuscular infiltrative lipomas originate from adipose tissue
adjacent to muscle fibrils and might depict peripheral tissue
invasion (1,2). The clear margin character which is typical for
benign tumors may not be observed in these tumors. They
seldom remain in muscle tissue and may infiltrate into fascia and
tendons. Infiltrative lipomas commonly observed in extremities
and the abdominal wall muscles are quite rare in the paraspinal
muscles. Although its etiology is not well known, however there
are a number of suspicious factors. The main ones are trauma,
chronic irritation, obesity, genetic and endocrine issues (2).
 Patients often complain about cosmetic issues or symptoms
arising from pressure on adjacent anatomic structures.
Asymptomatic cases are diagnosed incidentally via radiological
imaging applied for various reasons. Palpable lesions having
large sizes have soft consistency and characteristics of slow-
growing mass. No change is anticipated in the soft tissue
adjacent to the lesion. Physical examination is limited in
non-palpable lesions due to deep-seated localization, and
radiological imaging is preferred for diagnosis (3).
The plain radiography finding is radiolucent soft tissue mass
in homogeneous fat opacity. Opaque lines of muscle fibers
might be seen inside the tumor area. Ultrasonography has
similar characteristics with that of superficial lipomas, and is
hyperechogenic compared to the muscle tissue. However,
it is difficult to detect deep-seated lesions. Despite that the
vascularization is not the anticipated finding; some cases may
display minimal vascularization (2). Attenuation in computed
tomography (CT) similar to fat tissue and negative hounsfield
unit value are helpful in diagnosis.
Soft tissue density streaks those can be observed better with
MRI compared to CT are present in the lesion. It is quite helpful
in the diagnosis that the fat tissue has high signal characteristics
on T1 and T2 weighted images and hypointens signal on fat-
suppressed sequence. Furthermore, interdigitations created by
muscle fibers, those are isointense with the muscle tissue, can
be detected via MRI (2,3).

**Keywords:** Lipoma, radiculopathy, magnetic resonance
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**Anahtar kelimeler:** Lipom, radikülopatı, manyetik rezonans
görüntüleme

**Ethics**

**Informed Consent:** It was taken.

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