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Case Report

Sciatic Nerve Schwannoma: Case Report

Siyatik Sinir Schwannoması: Olgu Sunumu

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ABSTRACT

Schwannomas are common, truly encapsulated and benign peripheral nerve sheath tumors. Their occurrence in extracranial locations is rare. Schwannomas most commonly occur in adults between 20 and 50 years of age. Their symptomatology usually mimics sciatic pain due to herniated disc. The most common clinical presentation of sciatic nerve schwannoma is a painful palpable mass. A 40-year-old woman was admitted to our neurosurgery department with a slow-growing mass at the medial right posterior thigh. Magnetic resonance imaging (MRI) showed a mass involving the right sciatic nerve in its middle portion. No neurological deficit was noted postoperatively. The result of the histopathological examination was reported as schwannoma. We report a case of large sciatic schwannoma with chronic sciatica.

KEYWORDS: Peripheral nerve, Sciatic schwannoma, Sciatic nerve

ÖZ

Schwannomalar sık görülen, gerçek kapsül yapısına sahip ve iyi huylu periferik sinir kılıfı tümörleridir. Schwannomaların kranial dışı yerleşimleri oldukça nadir görülür. Schwannomalar sıklıkla 20 ile 50 yaş arasında görülmektedirler. Genellikle herniye disk hernisi semptomlarını taklit eder. Periferik sinir Schwannomalarında en sık görülen klinik durum ağrılı ele gelen şişliktir. 40 yaşında kadın nöroşirurji kliniğimize sağ uyluk bölgesinde yavaş büyüyen şişlik ile başvurdu. Hastanın Manyetik Rezonans görüntülemesinde sağ siyatik sinir orta kısmında kitle tespit edildi. Ameliyat sonrası herhangi bir nörolojik defisit ile karşılaşılmadı. Hastanın histopatolojik sonucu schwannoma olarak rapor edildi. Biz bu yazıda kronik siyataljiye neden olan büyük siyatik sinir schwannomalı bir olguyu sunduk.

ANAHTAR SÖZCÜKLER: Periferik sinir, Siyatik schwannoma, Siyatik sinir

INTRODUCTION

The sciatic nerve is the largest nerve in the human body. Schwannomas, also called neurinomas or neurilemmomas, are tumors arising from the schwann cells of the neural sheath. Schwannomas are the most common peripheral nerve sheath tumors (1%). We report a case of sciatic schwannoma in this article.

CASE REPORT

A 40-year-old woman was admitted to our neurosurgery department with a slow-growing, painful swelling in her right posterior thigh. The swelling had been present for more than 1 year. Tinnel sign was positive on the posterior aspect of the right thigh. On physical examination, a painful isolated soft-tissue mass was detected in the posterior aspect of the right thigh. No motor deficit was detected on neurological examination.

Magnetic resonance imaging showed a well-defined expansive mass associated with the sciatic nerve in the posterior compartment of the thigh (Figure 1).

The patient underwent a linear midline skin incision on the posterior surface of the thigh. The schwannoma was seen in relation to the sciatic nerve. The tumor had originated from the main sciatic nerve trunk. The tumor was enucleated from its capsule without any damage to the sciatic nerve (Figure 2). Complete excision of the tumor was performed.

Macroscopically, the tumor was characterized by an encapsulated nodule 6 cm in length with a firm greyish cut surface (Figure 3). There was no neurological deficit in the postoperative period.

Microscopically, the tumor was composed of spindle cells showing short fascicular arrangement in a collagenous stroma. The neoplastic cells had wavy vesicular nuclei and eosinophilic cytoplasm (Figure 4). No mitotic activity or necrosis was found. Perivascular hyalinization and intratumoral scattered mast cells were seen.

DISCUSSION

Peripheral nerve tumors are rare conditions. Frequent locations for schwannomas are the head, neck and main nerve trunk (1, 6). Schwannomas in the sciatic nerve are rare and usually present as a mass or pain in the thigh. Sciatic schwannoma frequency is less than 1% (3, 4, 5). Schwannomas occur in any age group; there is no sex predilection. The posterior tibial nerve at the tarsal sinus is the most frequently involved nerve of the lower limb. The most common clinical presentation of sciatic nerve schwannoma consists of a painful

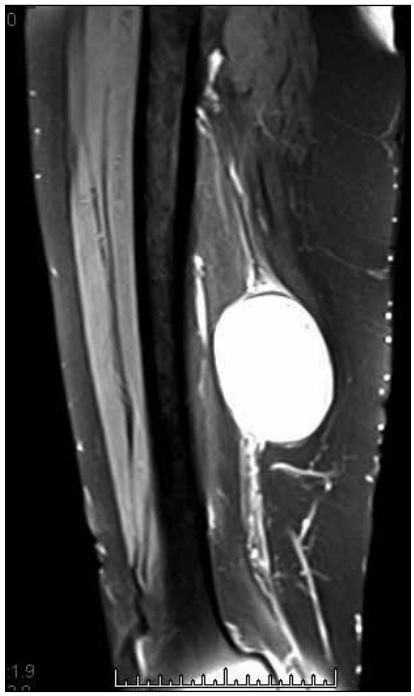

Figure 1: Magnetic Resonance Imaging (MRI) sagittal gadolinium-enhanced T1-weighted image of the posterior aspect of the right thigh: well-defined, homogeneous fusiform mass.

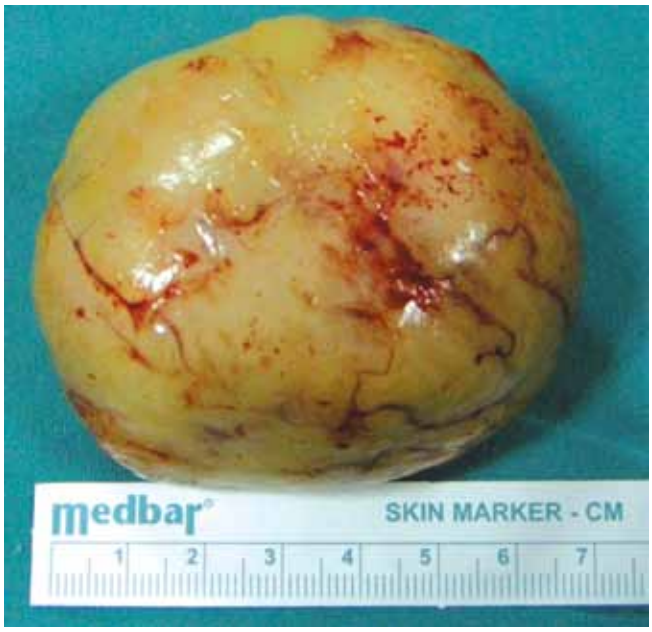

Figure 3: Photograph of the mass after complete excision.

palpable mass (7, 9, 11). Schwannomas most commonly occur in adults between 20 and 50 years of age. Schwannomas are usually homogeneous on both T1- and T2-weighted images but a neurofibroma is usually heterogeneous. Sciatic schwannoma has a good prognosis and a low incidence of recurrence and malignant transformation. The risk of malignant transformation is approximately 18% in neurofibromatosis type 1 and 5% in schwannomas. Patients with von Recklinghausen disease carry a worse prognosis (2, 8, 10, 12).

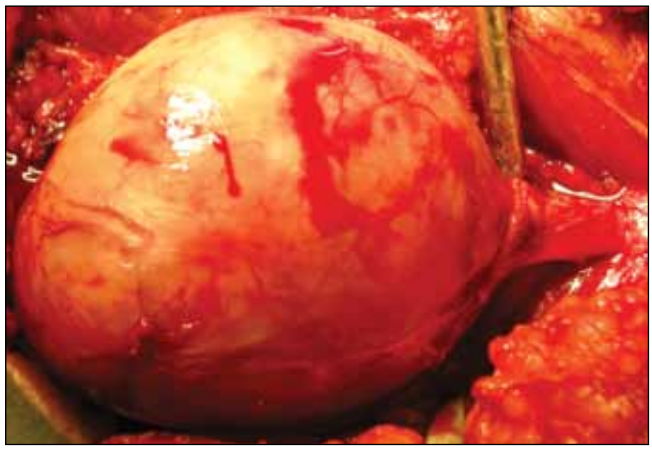

Figure 2: Operative view of the tumor originating from the main sciatic nerve trunk.

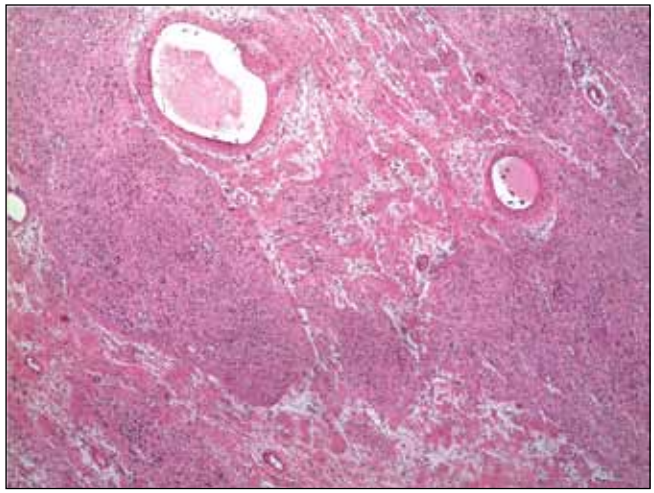

Figure 4: Short bundles of tumor cells, having wavy nuclei in a collagenous background (A, x40).

CONCLUSION

Schwannoma is rare cause of sciatica. Although rare, schwannoma and neurofibroma of the sciatic nerve should be suspected if persistent sciatalgia is reported with no signs of radicular compression at imaging.

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