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Case Report

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BENIGN SCHWANNOMA OF THE INTERNAL POPLITEAL SCIATIC NERVE, ABOUT A CASE

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SUMMARY

Schwannomas are tumors of the peripheral nerves, developed from of the nerve sheath. Schwannomas of the sciatic nerve are rare. Their symptomatology is usually close to sciatica by herniated disc, which can delay their diagnosis. MRI helps guide the diagnosis by highlighting a tumor with the same signal as muscle tissue. The ideal treatment for these tumors is surgical enucleation with careful dissection of the surrounding nerve bundles. We report the case of a benign schwannoma developed at the expense of the internal popliteal sciatic nerve.

KEYWORDS: Sciatica, Schwannoma, MRI, Surgery.

INTRODUCTION

Schwannoma, also called neuroma or neurilemmoma, is a benign tumor of the peripheral nerves, developed at the expense of Schwann's sheath cells. It is the most common tumor of the peripheral nerves.[1,4] Schwannomas of the sciatic nerve are rare (1%) and often late discovered.[1,3] We report, in the following observation, the case of a schwannoma of the sciatic nerve revealed by chronic sciatica in a young adult and discuss the contribution of imaging in the diagnosis of this benign tumor

PATIENT AND OBSERVATION

42-year-old patient with no notable pathological ATCD, who for 3 years had had a mass of the popliteal fossa, retro condylar, straight manifested by paresthesias and electric shocks radiating towards the leg. Clinically, it is a hard mass of approximately 5 cm, adhering to the deep plane, the knee's mobility is complete. Standard radiography is normal. An ultrasound was performed which suggested a tumor at the expense of internal poplitis sciatica. The radiological assessment was completed by an MRI which clearly visualized the tumor (Figure 1). The patient underwent surgical treatment based on the excision of the tumor (Figure 2). The operating room (Figure 3) was sent for an anatomo-pathological study which confirmed the diagnosis of a benign schwannoma.

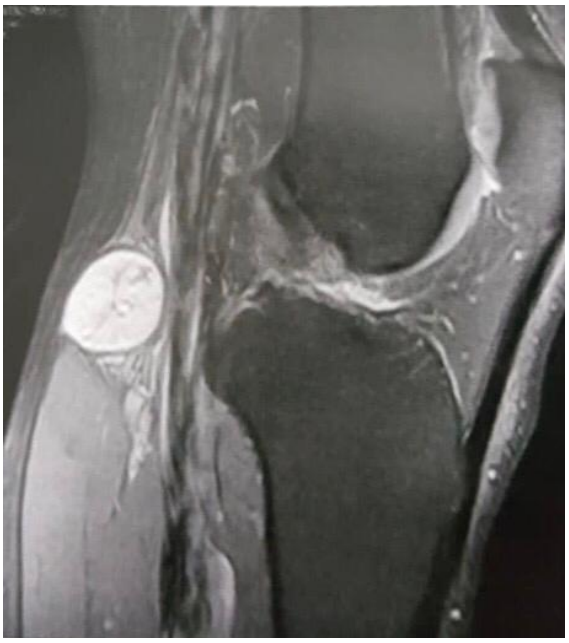

Figure 1: Sagittal MRI section showing the tumor process at the expense of the sciatic nerve in T2-weighted sequence.

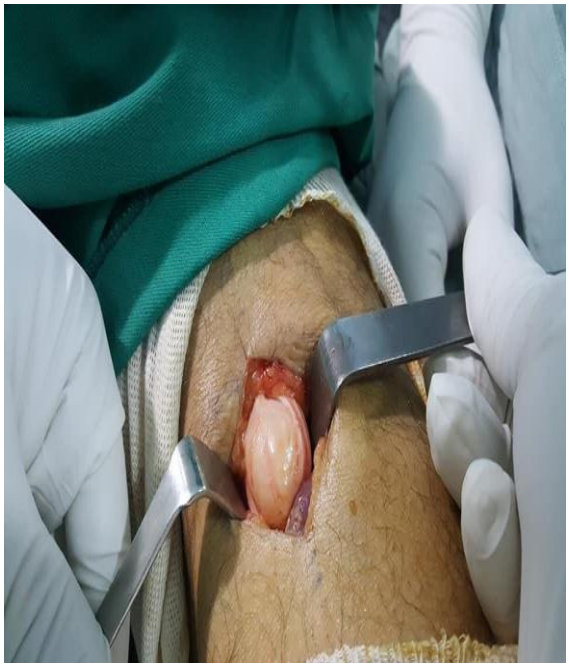

Figure 2: Operative view of the schwannoma of the sciatic nerve.

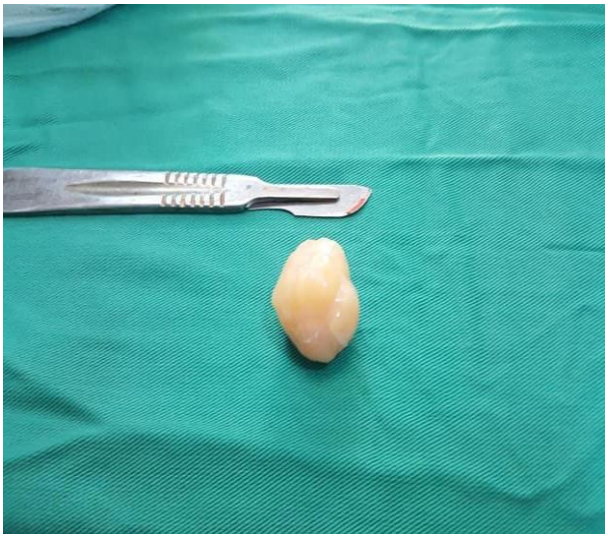

Figure 3: Macroscopic appearance of the operating room after complete surgical excision.

DISCUSSION

Tumors of the peripheral nerves are rare. They are developed from the nerve sheath,. Schwannomas are the most common tumor of the peripheral nerves.[2] These tumors occur with predilection in the adult from 20 to 50 years, and always indifferently the man and the woman. They locate preferentially on the anterior surface of the upper limbs, conventionally at the level of the large nerve trunks.[5-6] The lower limbs are only rarely the site of benign schwannomas and pose more of the diagnostic problem.[6-7] they are of interest in this location as well the large nervous trunks as the superficial sensory nerves. It is necessary to know how to evoke the diagnosis in front of pain or paraesthesia of a lower limb without obvious clinical anomaly. Malignant transformation is also rare.[3,8] MRI allows the diagnosis to be guided by highlighting a tumor with the same signal as the muscle tissue on sequences balanced in T1 and of very intense signal in T2 with a few ranges. central hyposignal, but it does not differentiate schwannomas from neurofibromas,[9-10] it is histology which confirms the diagnosis. Histologically, the solitary neurofibroma represents the main differential diagnosis.

Treatment is surgical. Schwannomas are theoretically extirpable because they repress the fascicular groups without penetrating them, thus allowing their enucleation without interruption of nerve continuity,[3,5,11,12] as was the case for our patient.

The prognosis for this tumor is good with a low rate of recurrence and malignant degeneration unlike neurofibromatosis.[2]

CONCLUSION

The schwannoma of the sciatic nerve is a very rare tumor, it is always necessary to evoke the diagnosis, of the schwannoma of the sciatic nerve in front of any trailing sciatalgia in a young adult, without no radicular compression being highlighted MRI, allows discuss the diagnosis and differentiate between entreschwannoma and neurofibroma. However, the diagnosis of certainty remains histological and resection of the tumor makes it possible to bring good results.

Consent

The patient has given their informed consent for the case to be published.

Competing interests

The authors declare no competing interest.

Authors' contributions

All authors have read and agreed to the final version of this manuscript and have equally contributed to its content and to the management of the manuscript.

REFERENCES

1. Kralick F, Koenigsberg R. Sciatica in a patient with unusual peripheral nerve sheath tumors. Surg Neurol, 2006; 66: 634—7.
2. Martinez Algarra JC, Gastaldi Rodrigo P, Palomares Talens E. Le schwannome multiple du nerf sciatique. À propos d'un cas. Rev Chir Orthop Reparatrice Appar Mot, 1999; 85: 632—5.
3. Rekha A, Ravi A. Sciatic Nerve Schwannoma. Int J Low Extrem Wounds, 2004; 3: 165—7.
4. Nawabi DH, Sinisi M. Schwannoma of the posterior tibialnerve: the problem of delay in diagnosis. J Bone Joint SurgBr, 2007; 89: 814—6.
5. Whitacker W, Droulias C. Benign encapsulated neurilemoma: a report of 76 cases. Am Surg, 1976; 42(9): 675-678.

6. Kralick F, Koenigsberg R. Sciatica in a patient with unusual peripheral nerve sheath tumors. Surg Neurol, 2006; 66(6): 634-637.
7. Kelso T, Ferrari C, Frassica F. Sciatica caused by a neurilemoma of the intrapelvic portion of the sciatic nerve. J Bone Joint Surg, 1993; 75(4): 603-605.
8. Topsakal C, Akdemir I, Tiftikci M, Ozercan I, Aydin Y. Malignant schwannoma of the sciatic nerve originating in a spinal plexiform neurofibroma associated with neurofibromatosis type 1 case report. Neurol Med Chir (Tokyo), 2001; 41: 551—5.
9. Wolock B, Baugher W, McCarthy E. Neurilemoma of the sciatic nerve mimicking tarsal tunnel syndrome. J Bone Joint Surg, 1989; 71(6): 932-934.
10. Cerofolini E, Landi A, DeSantis G, Maiorana A, Canossi G, Romagnoli R. MR of benign peripheral nerve sheath tumors. J Comput Assist Tomogr, 1991; 15(4): 593-597.
11. Thiebot J, Laissy JR, Delangre T, Biga N, Liotard A. Benign solitary neurinomas of the sciatic popliteal nerves CT study. Neuroradiology, 1991; 33: 186—8.
12. Créteur V, Bacq C, Fumière E, Bissen L, Delcour C. Échographie des nerfs périphériques. Deuxième partie : membre inférieur. J Radiol, 2007; 88: 349—60.
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