

Rarest Case Report Of Shwanomma Of Peripheral Nerve Near Left Ankle Joint Over Left Lower Tibia Medially.

Dr Mrunal Kshirsagar

Junior Resident General Surgery Bavmc Pune

Dr Varsha Anna Varghese

Senior Resident General Surgery Bavmc Pune

Dr Janhavi Pardeshi

Intern Bavmc Pune

Dr Mamta Tarmode

Intern Bavmc Pune

Dr Ananta Kulkarni

Hod And Professor General Surgery Bavmc Pune.

Abstract

Schwannomas are the rare benign tumor of peripheral nerves. They have a very low rate of malignant transformation. It can occur in any age group but less common in children.

Our 58yrs old patient presented with shwanomma over left ankle since two months which was first thought of a sebaceous cyst. Schwannomas can occur at any site of the body but rarely on lower extremities which is presented in our case. (1)

Patient had a positive tinel's sign and mri of ankle was performed which revealed an encapsulated subcutaneous soft tissue. The patient was operated with total intracapsular excision of the lesion which on further pathological investigation the specimen was diagnosed as schwannomma.

Date of Submission: 17-02-2024

Date of acceptance: 27-02-2024

I. Introduction:

Schwannoma is not common. It is a rare disease, which means it affects fewer than 200,000 people. Schwannoma is the most common type of peripheral nerve tumors in adults. Schwannoma can occur in people of all ages. (2)

Schwannoma is a rare type of tumor that forms in the nervous system. It grows from cells called schwann cells. Schwann cells protect and support the nerve cells of the nervous system. Schwannoma tumors are often benign, which means they are not cancer. But, in rare cases, they can become cancer. (3)

II. Case report:

We report a case of a 58-year-old adult who presented with painful swelling over left ankle since 2 months which was a subcutaneous mass overlying the lower tibia medially. Clinical examination revealed a positive tinel's sign. Magnetic resonance imaging (mri) of the ankle was performed, which revealed an encapsulated subcutaneous soft tissue mass overlying lower tibia medially. (3)

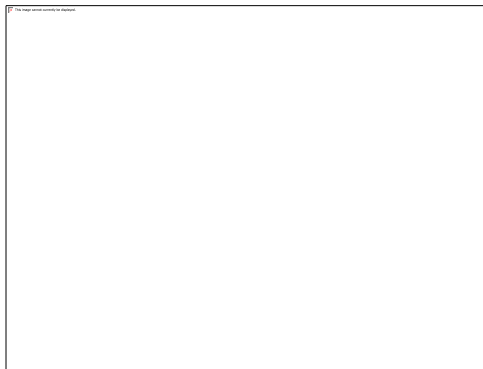


Fig 1 : Pre Op

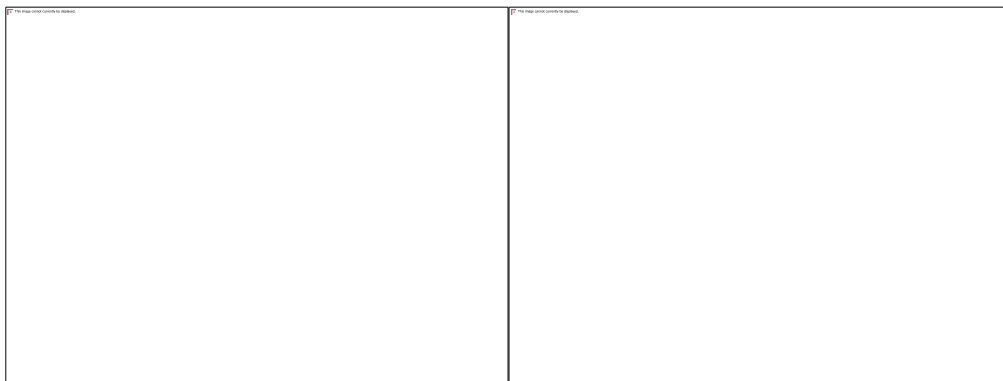


Fig 2: Intra-Op.

Fig 3: Intra-Op

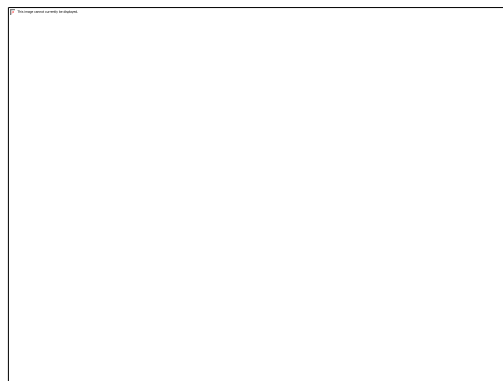


Fig 4: Intra-Op

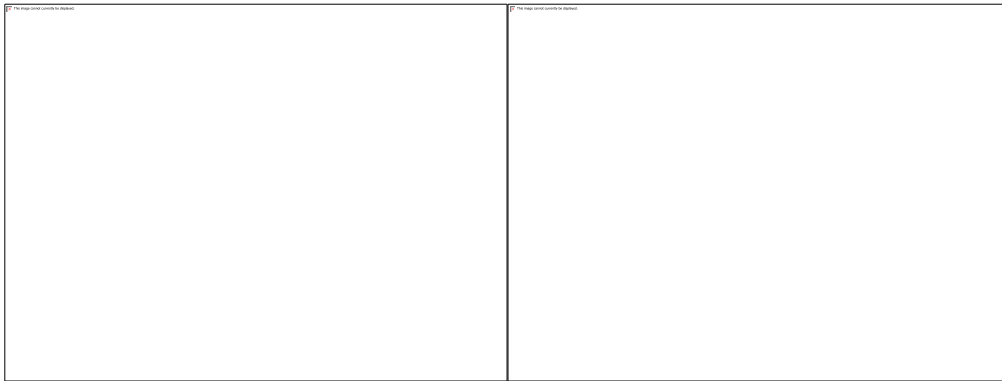


Fig 5: Post Op.

Fig 6: Specimen

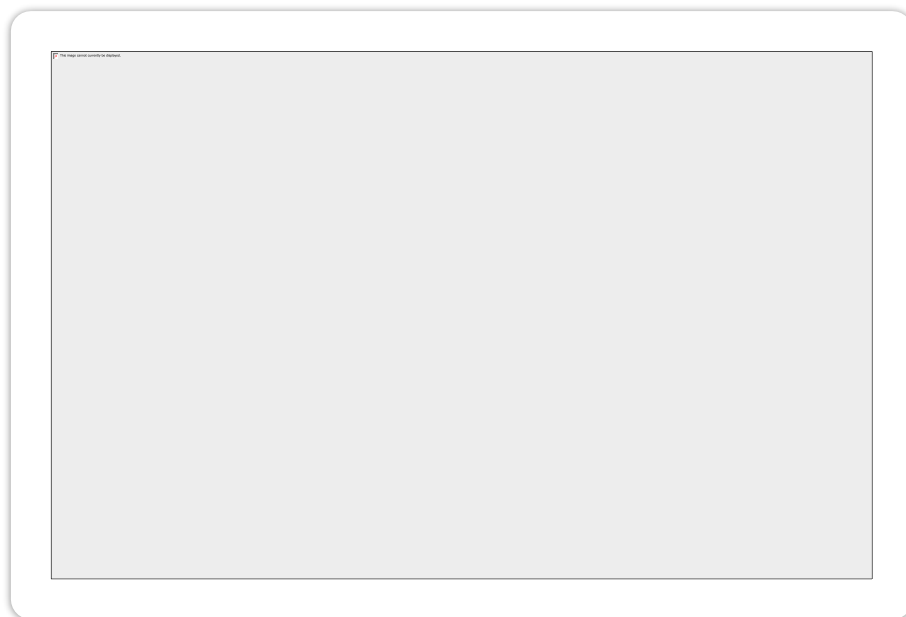
Gross

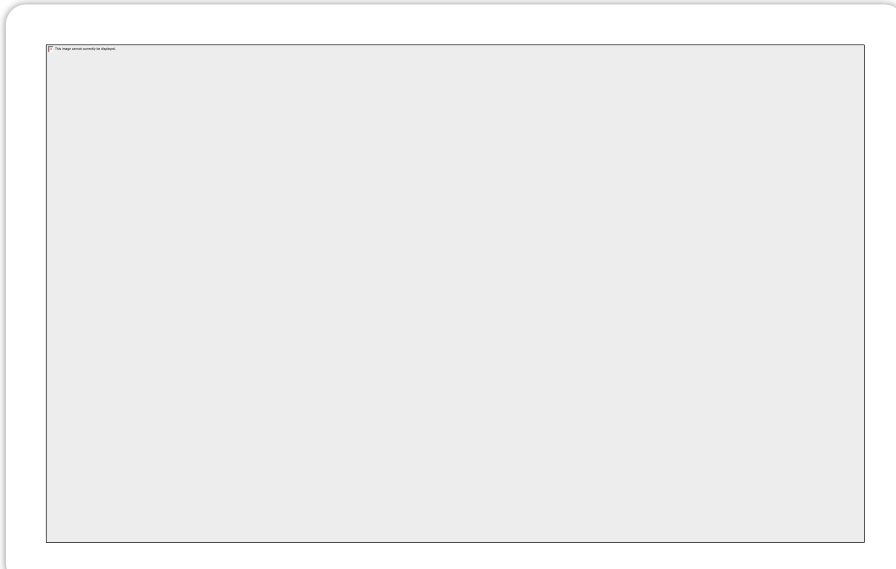
Received sample labeled as soft tissue swelling containing single globular well circumsised capsulated soft tissue mass measuring 3x2x2cm with attached stalk measuring 0.8cm in length. Cut section surface is zero. (4)

Microscopy:

Multiple sections studied showed biphasic tumor consisting of hypercellular antoni a areas and hypocellular antoni b areas. Individual cells are spindled with wavy or oval nuclei, eosinophilic cytoplasm and indistinct cytoplasm borders. Hypercellular area also show nuclear palisading at places. Hypercellular area contain thick walled hyalinized vessels. (5)

The patient was operated with total intracapsular excision of the lesion and the anatomopathological study of the surgical specimen came back in favor of a schwannoma. Postoperatively, the patient showed a good recovery with disappearance of pain and swelling. (6)







III. Discussion:

Schwannomas are uncommon benign tumors of the peripheral nerves with a low risk of malignant transformation. The most predominant age for schwannomas is 20 to 60 years of age.

They rarely affect children, can affect any part of the body but rarely occur in the lower extremity and typically present with a palpable mass, pain or neurological signs. (7)

As there is slow growth of the tumor the duration of symptoms before the diagnosis are often longed.

The diagnosis is made after analyzing the medical history, physical examination, positive tinel's sign and requiring multiple imaging including radiographs (seen as a calcified mass on radiographs) usgs and the most important mri as it is considered as investigation of choice in preoperative workup of schwannomas. (8)

Treatment of choice for management of schwannomas is surgery. The surgical approach is excision of tumor and allowing exposure of nerve upstream and downstream of tumors improving the pain and sensory symptoms in patients. (9)

IV. Conclusion:

The prognosis for a person with schwannoma depends on the size of the tumor and whether it has spread to other parts of the body.(10) depending on where the tumor is, people may have long term muscle weakness or hearing loss. If the entire tumor is removed by surgery, it is not likely to grow back.

Schwannoma treatment depends on where the abnormal growth is located and whether it is causing pain or growing quickly.(11)

Treatment options include:

Monitoring. Your doctor may suggest observing your condition over time. Observation may include regular checkups and a ct or mri scan every few months to see if your tumor is growing.(12)

Surgery. An experienced peripheral nerve surgeon can remove the tumor if it is causing pain or growing quickly. Schwannoma surgery is done under general anesthesia. Depending on the location of the tumor, some patients can go home the day of surgery. Others may need to stay in the hospital for one or two days. Even after successful removal of the tumor during surgery, a tumor may recur.(13)

Radiation therapy. Radiation therapy is used to help control the tumor growth and improve your symptoms. It may be used in combination with surgery.

Stereotactic radiosurgery. If the tumor is near vital nerves or blood vessels, a technique called stereotactic body radiation therapy may be used to limit damage to healthy tissue. With this technique, doctors deliver radiation precisely to a tumor without making an incision.(14)

Reference

- [1]. Coy S, Rashid R, Stemmer-Rachamimov A, Santagata S. Correction To: An Update On The Cns Manifestations Of Neurofibromatosis Type2 (1)
- [2]. Acta Neuropathol. 2020 Apr;139(4):667.[Pmc Free Article] [Pubmed](2)
- [3]. Samii M, Matthies C. Management Of 1000 Vestibular Schwannomas (Acoustic Neuromas): Surgical Management And Results With An Emphasis On Complications And How To Avoid Them. Neurosurgery. 1997 Jan;40(1):11-21; Discussion 21-3. [Pubmed](3)
- [4]. Karpinos M, Teh Bs, Zeck O, Carpenter Ls, Phan C, Mai Wy, Lu Hh, Chiu Jk, Butler Eb, Gormley Wb, Woo Sy. Treatment Of Acoustic Neuroma: Stereotactic Radiosurgery Vs. Microsurgery. Int J Radiat Oncol Biol Phys. 2002 Dec 01;54(5):1410-21. [Pubmed](4)
- [5]. Welling Db, Slater Pw, Thomas Rd, Mcgregor Jm, Goodman Je. The Learning Curve In Vestibular Schwannoma Surgery. Am J Otol. 1999 Sep;20(5):644-8. [Pubmed](5)
- [6]. Mayo C, Yorke E, Merchant Te. Radiation Associated Brainstem Injury. Int J Radiat Oncol Biol Phys. 2010 Mar 01;76(3 Suppl):S36-41. [Pmc Free Article] [Pubmed](6)
- [7]. Flickinger Jc, Kondziolka D, Lunsford Ld, Kassam A, Phuong Lk, Liscak R, Pollock B. Development Of A Model To Predict Permanent Symptomatic Postradiosurgery Injury For Arteriovenous Malformation Patients. Arteriovenous Malformation Radiosurgery Study Group. Int J Radiat Oncol Biol Phys. 2000 Mar 15;46(5):1143-8. [Pubmed](7)
- [8]. Bhandare N, Jackson A, Eisbruch A, Pan Cc, Flickinger Jc, Antonelli P, Mendenhall Wm. Radiation Therapy And Hearing Loss. Int J Radiat Oncol Biol Phys. 2010 Mar 01;76(3 Suppl):S50-7. [Pmc Free Article] [Pubmed](8)
- [9]. Kano H, Kondziolka D, Khan A, Flickinger Jc, Lunsford Ld. Predictors Of Hearing Preservation After Stereotactic Radiosurgery For Acoustic Neuroma. J Neurosurg. 2009 Oct;111(4):863-73. [Pubmed](9)
- [10]. Bentzen Sm, Constine Ls, Deasy Jo, Eisbruch A, Jackson A, Marks Lb, Ten Haken Rk, Yorke Ed. Quantitative Analyses Of Normal Tissue Effects In The Clinic (Quantec): An Introduction To The Scientific Issues. Int J Radiat Oncol Biol Phys. 2010 Mar 01;76(3 Suppl):S3-9. [Pmc Free Article] [Pubmed](10)
- [11]. Vindhya Mr, Elshimy G, Elhomsy G. Statpearls [Internet]. Statpearls Publishing; Treasure Island (FL): Jul 10, 2023. Carney Complex. [Pmc Free Article] [Pubmed](11)
- [12]. Paganini I, Capone Gl, Vitte J, Sestini R, Putignano Al, Giovannini M, Papi L. Double Somatic Smarcb1 And Nf2 Mutations In Sporadic Spinal Schwannoma. J Neurooncol. 2018 Mar;137(1):33-38. [Pubmed](12)
- [13]. Propp Jm, Mccarthy Bj, Davis Fg, Preston-Martin S. Descriptive Epidemiology Of Vestibular Schwannomas. Neuro Oncol. 2006 Jan;8(1):1-11. [Pmc Free Article] [Pubmed](13)
- [14]. Ostrom Qt, Cioffi G, Gittleman H, Patil N, Waite K, Kruchko C, Barnholtz-Sloan Js. Cbtrus Statistical Report: Primary Brain And Other Central Nervous System Tumors Diagnosed In The United States In 2012-2016. Neuro Oncol. 2019 Nov 01;21(Suppl 5):V1-V100. [Pmc Free Article] [Pubmed](14)