

Title: Limb-Saving Sciatic Nerve Excision Secondary to a Soft Tissue Mass, A Case Study

Authors: Lauren Bartels, DO and Anuja Korlipara, MD

Case Diagnosis: Left Sciatic Nerve Resection Secondary to Sarcoma versus Nerve Sheath Tumor

Case Description: A 75-year-old male presented with worsening pain radiating down left his lower extremity beginning in 2018. MRI demonstrated a mass possibly arising from the sciatic nerve. The patient became wheelchair-bound with severe foot drop and 100% left sciatic nerve palsy. He underwent left sciatic nerve tumor wide resection, complicated by azygous vein thrombus and inability to void spontaneously. Prior to surgery, the patient was wheelchair dependent. At the start of acute rehabilitation, the patient was in severe pain significantly helped by gabapentin. On discharge, he was still without sensation of the left foot and had 2/5 hip flexion, 5/5 knee extension, and 0/5 in ankle motions on the left. Transfers were with supervision as was walking 150 feet with a rolling walker and an Ankle-foot-orthosis. He walked up 12 steps with contact guard assist. The patient also had improvement of his urinary retention, requiring occasional straight catheterization.

Case Discussion: Soft tissue tumors involving the sciatic nerve have been an indication for limb amputation. More recently, limb-saving surgery, involving partial or complete sciatic nerve resection has had good results.* Recent thinking suggests the patient may have more function using an ankle-foot-orthosis (AFO) than a prosthesis for a hip disarticulation even without sensation.** Our patient underwent sciatic nerve excision from the root at the sacrum to the proximal knee. We demonstrate the importance of intensive rehabilitation post-procedure for functional independence recovery. Our patient improved from wheelchair dependence prior to surgery to walking 150 feet with a rolling walker with an AFO and could navigate stairs.

Conclusion: This case is a demonstration of the benefit of limb-saving surgery for soft tissue masses involving the sciatic nerve and displays the importance of extensive rehabilitation for such patients to improve functional independence.

* Sweiti H, Tamimi N, Bormann F, Divo M, Schulz-Ertner D, Ahrens M, Ronellenfisch U, Schwarzbach M. Limb-Salvage Surgery of Soft Tissue Sarcoma with Sciatic Nerve Involvement. *Sarcoma* Volume 2018, Article ID 6483579, 8 pages.

** Fuchs B, Davis AM, Wunder JS, Bell RS, Masri BA, Isler M, Turcotte R, Rock MG. Sciatic Nerve Resection in the Thigh A Functional Evaluation. *CLINICAL ORTHOPAEDICS AND RELATED RESEARCH* Number 382, pp. 34–41