

Sciatic Nerve Palsy Attributed to a Traumatic Event

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Case Diagnosis

Sciatic Nerve Palsy secondary to a posttraumatic acetabular fracture in the setting of a motor vehicle accident.

Case Description

A 34 year old male with no significant past medical history sustained a motor vehicle accident and was diagnosed with a left posterior acetabular fracture. On impact, he was unable to move his left leg, and his sensation was diminished causing numbness, tingling, and pronounced pain. He underwent an open reduction internal fixation of the posterior fracture of his acetabulum. Throughout his acute rehabilitation admission, he presented with left foot paresis, left foot drop, and diminished sensation. Electrodiagnostic studies showed evidence of an axonotmetic lesion of the left sciatic nerve with spontaneous activity noted in muscles innervated by both the peroneal nerve and tibial nerve. His pain was alleviated with gabapentin. He was prescribed an ankle-foot orthotic to aid in his ambulation.

Case Discussion

Sciatic nerve palsy may occur as the result of posttraumatic acetabular trauma (highest prevalence), or as a complication during a perioperative or postoperative period. The highest incidence of sciatic nerve palsy was in association with posterior fracture patterns of the acetabulum as it is the region of where the sciatic nerve is located, placing the nerve in a vulnerable position.

Conclusion

Sciatic nerve palsy can be seen in three different scenarios, traumatic, perioperative, or post-operative. It is essential to identify the palsy with the clinical presentation and aid of a thorough history and physical exam, to properly diagnose and treat a sciatic nerve palsy. Early physical therapy, adequate pain control, and supportive modalities are vital in the treatment and recovery of a sciatic nerve palsy.

Resources:

1. Su EP. Post-operative neuropathy after total hip arthroplasty. Bone Joint J. 2017 Jan;99-B(1 Suppl):46-49. doi: 10.1302/0301-620X.99B1.BJJ-2016-0430.R1. Retraction in: Bone Joint J. 2017 May;99-B(5):702-704. PMID: 28042118