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The change of perilesional scar tissue in a sciatic nerve after injecting steroid.

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Introduction

Disc herniation, pregnancy, piriformis syndrome, hip joint operation and trauma are frequent causes of sciatica, which can lead to palsy of the hamstrings muscles and of all the muscles below the knee with sensory loss in the cutaneous distribution of the peroneal and tibial nerves. In this case, we will introduce the change of perilesional scar tissue in a sciatic nerve after injecting triamcinolone.

Case

A 41-year-old male patient slipped his Rt. foot a month ago. After that he has felt pain around Lt. thigh spreading to lower leg.both knee and came to hospital. The ankle DTR(++/++), upper motor sign(-), MMT (N/N), full active ROM, SLRT(-/-) were checked and the chief complaint was the pain along the sciatic nerve pathway at the level of VAS5. We performed lidocain TPI in Lt. hamstring muscles on the first day of visit and did sciatic nerve block approaching Lt. piriformis after a week, and it didn't make pain relief. On the day of third visit, the ultrasonography was done around the point of tenderness on thigh and it revealed increased echogenicity followed by acoustic shadow in the sciatic nerve. [Fig.1] MRI study showed delineation of both sciatic nerve without abnormal soft tissue signal intensity. US-guided steroid injection was performed and after two weeks it helped pain relief at the level of VAS2. Furthermore the lesion which had been hyperechogenic was changed into hypoechogenic, like it was swollen. [Fig.2]

Conclusion

Bubbles and the steroid/anesthetic mixture are a frequent cause of increasing echogenicity. but in this case, the patient not only had medical performance before but also had any bad medical conditions at all. Recalling the structure of the sciatic nerve, which is the bundle of nerve fibers, the lesion might have been the scar tissue around the perineurium as a by-product of injury and must have infiltrated by steroid injection.

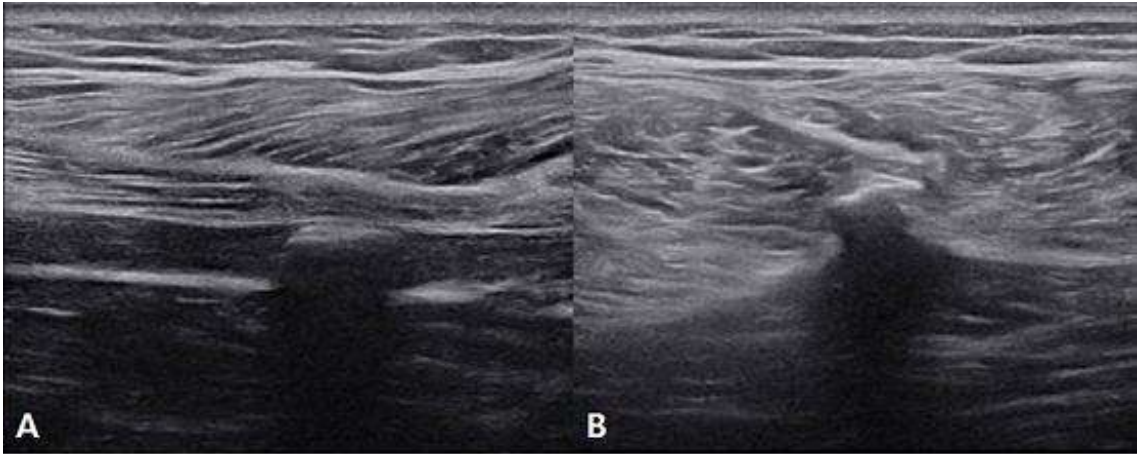


Fig 1. Increased echogenicity in the sciatic nerve. A. Long axis, B. short axis

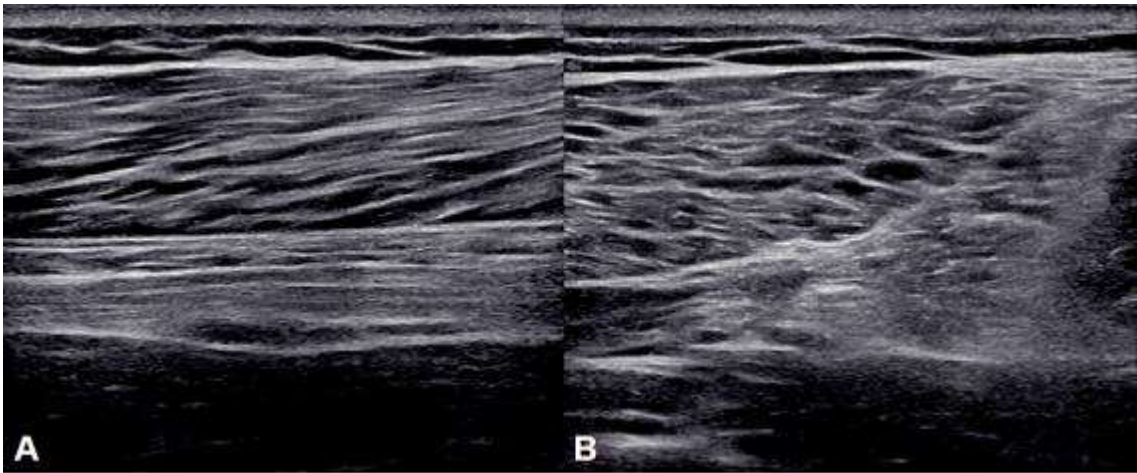


Fig 2. Two weeks after US-guided steroid injection for treatment of sciatic nerve lesion. A. Long axis, B. short axis