

Diabetic Lumbosacral Radiculo-Plexus Neuropathy Misdiagnosed as Sciatica: Case Report

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INTRODUCTION

Diabetic lumbosacral radiculo-plexopathy is infrequent complication.

CASE DESCRIPTION

59-Y-old diabetic female, with history of chronic low back pain x 3 years diagnosed as spondylosis and sacroiliitis, controlled by interventional steroid injections and NSAID. Baseline exam: Lumbar lordosis, tenderness over lumbar spine and sacroiliac joints, limited lumbar ROM, Positive FABER test, DTJ: patellar and left ankle jerks G2/unelicited right ankle jerk. Hypoesthesia R L4, L5, S1, MMT full. Gait; normal with cane. X-ray lumbar spine: degenerative spine. NCS-EMG. On 3/29/2019 revealed chronic R S1 radiculopathy with no signs of recovery. Nov, 2019, she experienced severe left thigh pain, 10/10, for 3 weeks, not responding to usual medications, followed by sudden weakness of thighs and legs, more at left side, with difficulty standing from sitting, frequent falls. No improvement with usual management. Clinically: MMT progressed to: R/L hip flexors 3/5, 2/5, Quadriceps; 3/5, 3/5, Hamstrings 4/5, 3/5, ankle muscles 4/5 bilaterally. MRI spine (12/11/2019) no evidence of disc bulge and facet hypertrophy. NCS/EMG (1/24/2020) revealed prolonged left femoral DL (10.85 msec), No rest potential, neurogenic polyphasic MUP affecting bilaterally: Vastus medialis, medial gastrocnemius, gluteus Medius and maximus, extensor hallucis and tibialis anterior. Normal lumbar paraspinal muscles. The diagnosis of diabetic lumbosacral radiculo-plexus neuropathy (DLSRPN), was suggested. Her Laboratory testing: HgA1c=8, Border line creatinine level. Tapering dose of prednisone was prescribed for two weeks with diet and medication control for DM. The patient responded dramatically with improvement of pain by above 50% gradual recovery of muscle strength over months.

DISCUSSION

This case presented DLSRPN which was first misdiagnosed as sciatica, since the patient suffered for years from degenerative spine disease. Her MRI spine was negative for disc bulge that can explain the clinical manifestations. The characteristic presenting feature was severe thigh pain followed by severe proximal thigh muscle weakness more prevalent on the left side. That picture is more consistent with diabetic amyotrophy or lumbosacral plexopathy which is an unusual diabetic nerve complication secondary to ischemic nerve injury

Dyck et al. [1] suggested that Peripheral neuropathy is an important complication of diabetes mellitus. A particular type of proximal diabetic neuropathy, lumbosacral radiculo-plexus neuropathy (DLSRPN), presents with pelvi-femoral pain followed by weakness, beginning focally in the upper leg or thigh with spread to the contralateral limb, and variable weight loss. Ischemic nerve injury due to microscopic vasculitis has been suggested as the most probable mechanism of DLSRPN and derived from one well studied postmortem case reported 4 decades ago, the finding of microscopic vasculitis in proximal or distal cutaneous nerve biopsy tissue and the favorable response to immunotherapy.

In another study; an ischemic etio-pathogenesis of DLSRPN was first suggested by Raff and colleagues [2] in a newly diagnosed non-insulin dependent diabetic with mononeuritis multiplex presenting with acute asymmetrical leg pain and weakness, bilateral distal sensory disturbances, and reduced leg reflexes. Postmortem examination showed a multitude of unilateral small ischemic infarcted lesions of the proximal major nerve trunks of the leg and lumbosacral plexus.

Younger et al. suggested that DLSRPN is a well-recognized, painful, asymmetrical, immune mediated neuropathy of the lower limbs associated generally with non-insulin dependent diabetes, weight loss, and significant morbidity. The disorder has evolved along different nomenclature and eponymic terminology

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reflecting the diversity in opinions concerning the anatomic localization and underlying etio-pathogenesis [3].

Dyck et al, also suggested in his study that DLSPRN can affect motor, sensory and autonomic fibers. All explained by the ischemic injury with microscopic vasculitis, resulting in axonal pathology and the segmental demyelination probably secondary to axonal atrophy [1].

CONCLUSION

COVID-19 in rheumatoid arthritis with CNS preferential affection.

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