Sir,

Diabetic radiculoplexus neuropathy is the presenting manifestation of Diabetes mellitus in approximately one-third of patients. It is typically a lumbosacral neuropathy resulting in weakness, muscle wasting, and pain.\(^1\) Upper extremity involvement is rarely noted.\(^2-6\) We would like to share about a 45 year old male, with history of type 2 Diabetes mellitus of 8 years duration, who developed Isolated bi-brachial plexus neuropathy following an episode of Diabetic ketoacidosis.

A 45 year old male who was a diabetic for the last 8 years, and was not on any regular medications presented to us with complaints of paraesthesias over both upper limbs. His complaints started 3 months back, when he sustained a fracture of right tibia, developed Diabetic ketoacidosis and was hospitalized for more than 2 weeks and had grossly uncontrolled blood sugars. His complaints aggravated over past one week, he had clumsiness of both hands, left side more than the right, had pain over both arms, and difficulty in raising the arms above the level of head.

Clinical examination revealed wasting of both arms and forearm muscles bilaterally, wasting of thenar and hypothenar eminences and web spaces bilaterally. He had grade 4 power for shoulder & elbow movements bilaterally, hand grip was bilaterally weak. Lower limb muscles had normal bulk & power. The upper limb deep tendon reflexes were sluggish, lower limb reflexes were normally present. All sensory modalities impaired over medial half of palm, dorsum of hand, medial 1 ½ fingers, medial aspect of forearm B/L.

His blood sugar levels were not well controlled over past 3 months. An MR imaging of the cervical spine revealed no abnormality. Electrodiagnosis showed patchy multiple proximal and distal axonal neuropathies in both upper limbs, consistent with bilateral brachial neuritis. Vasculitis screen was also negative. Hence we reached a conclusion of Isolated B/L Brachial plexopathy following an episode of Diabetic ketoacidosis. We managed him with strict glycemic control & other supportive measures and his symptoms improved.

Diabetic radiculoplexopathy is commonly viewed as a condition affecting the lower extremities. Brachial plexus involvement has been occasionally described with lumbosacral radiculoplexus neuropathy, but isolated diabetic brachial plexopathy has been described only rarely.\(^2\) There has been a case report on isolated brachial plexopathy in a patient with Diabetic ketoacidosis.\(^7\) Another case study describes a patient with well-controlled type 2 diabetes who developed isolated bi-brachial diabetic plexopathy.\(^2\) In another study - Cervico-brachial involvement in diabetic radiculoplexopathy, Katz JS, Saperstein DS, concluded that diabetic radiculoplexopathy may involve the cervical region before, after, or simultaneously with the lumbosacral syndrome.

End Note

Author Information
1. Dr.Sumesh Raj, Associate Professor of Internal Medicine, Sree Gokulam Medical College, Trivandrum
2. Dr. Sheetal S, Postgraduate Resident, Department of Internal Medicine, Sree Gokulam Medical College, Trivandrum

Cite this article as

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