



## CLINICAL CORRELATION OF GLYCEMIC CONTROL &amp; PERIPHERAL NEUROPATHY IN TYPE II DIABETES

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**ABSTRACT**

**Introduction:** Diabetic neuropathy is common chronic complication of Diabetes mellitus, It is generally considered to be related to duration and severity of hyperglycemia, usually more than 50% of patients are often diagnosed take when irreversible nerve injury has occurred and its first presentation may be with a diabetic foot ulcer. Conduction velocity slowly decreases as duration of diabetes increases and directly related to blood sugar levels, conduction velocity improves with HbA1c levels returning to normal, it is the most specific test for neurological disorder. **Objective:** To correlate the value of blood sugar level and HbA1C in clinical manifestation of diabetic peripheral neuropathy in type 2 diabetes mellitus. **Materials and methods:** A total of 50 patients with Type 2 DM who were diagnosed on the basis of ADA criteria or who were taking treatment for Diabetes and having signs and symptoms of neuropathy were included in the study. A detailed history and examination was done for total of 50 patients, and all patients underwent FBS, PPBS, HbA1c, Nerve conduction study, target organ evaluation for Diabetic complications. **Results:** Out The age of the patients varied between to 35 years to 90 years (mean:  $58.27 \pm 11.52$  yrs. ). 11 subjects ( 22%) were on insulin and subjects on OHA were 39 (78%) The duration of diabetes varied from 5 to 25 years (mean  $9.54 \pm 3.65$  years) All patients were on pharmacotherapy. sensory system involvement was seen in 40 (80%) patients followed by motor symptoms 3(6%) cases. Autonomic symptoms were 10 cases and cranial nerve seen in 1 patient. Fundus examination revealed diabetic retinopathy in 10 patient. III cranial nerve palsy seen in one patient. Symmetrical sensory loss of gloves and stocking pattern seen in all patients. Distal symmetric sensory neuropathy was the most common type of peripheral neuropathy. Blood sugar estimation revealed evidence of poor control in 26 patients (52%) Estimation of glycosylated hemoglobin showed poor control in 26 patients (52%). Mean HbA1c in patient with diabetic neuropathy is  $8.61 \pm 1.66$ . Nerve conduction found neuropathy in 36 patients (72%) **Conclusion:** Out In patients with peripheral neuropathy with or without associated complications of diabetes (Like retinopathy, autonomic neuropathy) estimation of HbA1c and blood sugars was a better indicator of glycemic control. The glycosylated hemoglobin estimation is most accepted investigation in assessing diabetic control, which is not influenced by Age, Sex, duration of diabetes and a mode of therapy. Longer the duration and poorer the control of blood sugars, more are the chance of development of the diabetic peripheral neuropathy which correlates with higher levels of blood sugars and HbA1c.

**KEYWORDS :** Peripheral Neuropathy, Glycemic Control