Effect of Transcutaneous Electrical Nerve Stimulation on Acupoints in Type 2 Diabetes Mellitus: A Blood Glucose Analysis

Authors : Asif Arsalan

Abstract : The mortality rate of type 2 diabetes increasing day by day at an alarming rate. Changing lifestyle and environment have contributory effect in increase rate of type 2 diabetes mellitus. This study introduces a new method in physiotherapy field of treating a disease like diabetes, and gives the new way to control the diabetes without medicines.50 patients were selected on the basis of inclusion and exclusion criteria and were assigned to receive either TENS (group A) on the bilateral ST36 acupoints at a frequency of 25 Hz with intensity of 9 mA or placebo (group B) treatment for 5 minutes for 7 days. The blood glucose level was measured at both pre and post stimulation. Stimulation was given after 3 hours of food on every day regularly on stipulated time.There was significant improvement (P<0.05) in random blood sugar level of type 2 diabetes mellitus. It has been found TENS on bilateral ST36 acupoints have an effect to control plasma glucose level for type 2 diabetic mellitus patients and can be used without having any side effect. This study gives new idea to treat the type 2 diabetes conservatively with the TENS. As there are some study that TENS had been used to treat nausea, spasticity etc. condition by stimulating the acupoint but it is the very first time that TENS has been used to treat diabetes like disease. This study help the physiotherapy community to spread the physiotherapy treatment in other branches of the medical field and this gives a new identity for the physiotherapy. This also gives the benefit to patients to take a safe and cost effective treatment for the diabetes, and make the new use of TENS to treat other condition rather than pain.
Keywords : acupoint, plasma glucose level, type 2 diabetic mellitus, TENS
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