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Letter to Editor

Role of High Dose B₁₂ in Curing Hypoglycaemic Drug-induced Neuropathy

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A B S T R A C T

Dear Editor,

This is in response to the article titled "Study of vitamin B₁₂ deficiency and peripheral neuropathy in metformin-treated early type 2 diabetes mellitus" by Roy et al.¹

I must congratulate the authors for this research as this information helped me save the agony and trauma of my mother (82 years old) suffering from severe diabetes mellitus. Earlier, she started having an uncontrolled rise in blood sugar levels (HbA1C = 9.6), with sugar in urine on routine examination. Thereafter, doctors advised her to be put on a high dose of hypoglycaemic drugs i.e., tablets of sitagliptin phosphate 50 mg with metformin hydrochloride 1000 mg twice a day. After a few days, she started having numbness in her limbs and was given routine B-complex capsules with vitamin D. After about two years of use of these hypoglycaemic drugs twice a day, she had controlled blood sugar (average 6.0) and BP, however, she kept on complaining of severe numbness and a cold sensation all over the body. Slowly, she developed severe paresthesia and swelling all over the body and one-day paresis of the facial muscles, left side more than the right side (Figures 1-4). I, being a senior doctor having more than 30 years of experience, examined her for progressive neurological symptoms that included numbness of both arms, legs and face that subsequently turned into paresis of the face. All other tests for the liver and kidneys were normal. Blood investigations were being done every 3 months for the liver, kidneys, and electrolytes, including for the thyroid, and were normal. The echocardiogram (ECG) showed old infarcts and had no correlation with progressive paresthesia.

She had developed slurred speech and was not able to speak or hold anything in her hands. It was at this juncture that I read this article by Roy et al. and immediately advised her B₁₂ at 1500 µg twice a day. Within a few days, she showed immediate improvement in paresis of the face and slowly most of the paresthesia and numbness with swelling were no more visible and her normal speech was also restored within a week (Figure 5). I have written this letter to share my experience of how my mother was saved by a high dose of vitamin B₁₂. The lesson

learned is whenever a patient is put on hypoglycaemic agents, simultaneously s/ he needs to be put on a high dose of B₁₂ to escape the deficiency as routine B-complex supplementation fails in such cases. We were not aware that severe B₁₂ deficiency results due to a high dose of metformin, hence only routine B-complex tablets were given instead of a high dose of B₁₂ and initial B₁₂ levels were not analysed.



Figure 1. Swelling on the Face and Eyes



Figures 2. Swelling on Hands



Figure 3. Swelling on Feet



Figure 4. Sores in the Back Developed due to Hot Bottle in the Bed



Figure 5. Mother Now, Smiling

This is a clinical case report describing the observations made by a doctor of a patient after giving a high dose of vitamin B₁₂. This letter is important for practising clinicians because it explains that they should keep a watch on the B₁₂ levels (that need to be on the higher side) in patients put on metformin and other hypoglycaemic agents so that neurological symptoms do not develop in these patients. There are very few studies linking high doses of vitamin B₁₂ to remission of diabetic neuropathy² and many medical practitioners are unaware of this fact. They just prescribe routine B-complex that is actually not sufficient to supplement vitamin B₁₂ deficiency in patients on hypoglycaemic drugs.

Permissions

My mother's permission has been taken to publish her photographs for educational purposes.

Conflict of Interest: None

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