

# Diabetes and obesity management a pilot study based on magnesium Hydroxide oral supplement



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## Biography

Vinod C Tawar has completed his graduate degree at Bombay university in 1964 with major in chemistry and a minor in botany with honors. He has completed his postgraduate program in technology of pharmaceuticals and fine chemicals at Bombay university in 1966. In 1967, he has completed his master's degree programme in pharmacology at university of Manitoba, Canada in 1969. In 1970, he has commenced his work as a toxicologist and had established a province wide analytical laboratory in the field till 1981. He has completed his MD degree from medical school in 1985. He has also completed a 2 years residency, for a licensure as a physician. After a general practice of several years and pharmacology research he was awarded a family physician status in 2008. In the due course of his practice, he has continued with his interests in clinical research (diabetes, renal dysfunction, resistant dermatitis, peripheral vascular disease and leading into innovative treatment measures).



## Abstract

Magnesium has been well recognized as an essential element for human body functions and identified as a treatment for multiple diseases. It is often described as a complementary and alternative medicine with its lack of adverse symptoms i.e. well tolerated. In literature, magnesium has been used for the treatment of Eclampsia, Pre-eclampsia, cardiac arrhythmia, severe asthma, migraine, metabolic syndrome, glucose-insulin metabolism, dysmenorrhea, leg cramps for pregnant women and kidney disease. Among the dietary sources of magnesium are leafy green vegetables, nuts, legumes and whole grain.

A literature search on clinical trial studies on Magnesium hydroxide has been almost impossible likely due to its most economical nature and inspite of it being well tolerated. It's most common use being a gentle laxative. My study design included a trial consisting of 15 patients. 12 patients were diabetics with gastric paresis and others with irritable bowel disease. These patients were observed for a 12 weeks period weight monitored.

Each patient was advised to take 2 table spoon full magnesium hydroxide every morning and titrating to four tablespoons. The laxative effect was seen on late afternoon or next morning. The evacuation had some extent resulted in dehydration to variable extent and intermittent hunger. The patients were instructed to take fruit juices or nuts or digestive cookies. The caloric control and active life style was emphasized. After 12 weeks, body weights, waist length, blood pressure and routine diabetes parameters were studied.

Results: Normal blood pressures were observed. The weight loss of 15 to 20 pounds was seen. a decrease in HbA1C ranged from 0.4 to 0.6 inspite of COVID related limitations in activities. Renal function studies showed a normal creatinine and an increase in GFR thus preventing a kidney dysfunction risk. A Lipid study demonstrated decrease in total cholesterol, decreased LDL and increased HDL.

Conclusion: The administration of magnesium hydroxide had shown multiple benefits in the management of weight, diabetes and prevention of kidney and heart diseases. Studies on a large scale are needed for further evidences.