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To study the effect of taurine on the effects of vital bones and regulate the level of glucose in type II diabetes

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ABSTRACT

Taurine is sulfur containing semi-essential amino acid that has important roles in many biological processes, but its effect on glucose homeostasis, weight, growth and bone mineralization weren't well-defined. Objectives: the evaluation of oral Taurine effects has used for 3 months on bone mineralization biomarker, glycemic control and body weight in type ll diabetic patients. Methods: the interventional double-blind placebo-controlled study in which 80 patients with type 2 diabetes mellitus (age range 45-55) assigned in either control (n=40), or study group the (n=40) group. The last group has received a 1000mg capsule of Taurine once a day for three months. Parameters measured were serum calcium, 25(OH) vitamin D and osteocalcin, NTX-1 HbA1C% with fasting blood glucose before and after 3 months. Results: taurine led to significant ($p<0.05$) rise in osteocalcin, significant lowering in body weight, BMI and there were no significant changes in serum calcium, NTX-1, Vitamin D, HbA1C and fasting blood glucose, all as compared with the control value. Conclusions: the 3 months of oral Taurine are used in type II diabetic patients may modulate bone mineralization represented by elevation of osteocalcin and reduction of body weight, but has no significant effect on glycemic control and did not reduce HbA1C%.

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INTRODUCTION

Diabetes Mellitus is a pandemic metabolic health disturbance, which featuring by chronic hyperglycemia and induces many pathological complications among both sexes in a wide range of ages, so these complications include microvascular complications like nephropathy, retinopathy, neuropathy and macrovascular complications like acute coronary syndrome and stroke. Several studies in recent years approved that patients with type II diabetes mellitus are prone to osteoporosis, and they are at a