ABSTRACT

BACKGROUND AND OBJECTIVE :

The prevalence of vitamin B12 deficiency varies from 5.8 % to 30% among patients undergoing long-term treatment with metformin.

DESIGN :

Cross sectional study.

METHODS :

Patients with Type 2 diabetes were selected based on inclusion and exclusion criteria. Basic biochemical investigation with peripheral smear done. Serum B12 assay were done. Vitamin B12 deficiency is defined as values <180pg/ml. Association between vitamin B12 deficiency with duration of metformin therapy, duration of diabetes, with age, sex were done.

RESULTS

The mean vitamin B12 level is low as the duration of metformin treatment increases. The sex, age relation with development of vitamin B12 deficiency was not significant. Mean MCV is higher in the Vitamin B12 deficient group. Macrocytosis is mainly noted in the vitamin B12 deficient group.

CONCLUSION :

Vitamin B12 deficiency occurs in type 2 diabetes mellitus patients treated with long-term metformin. The duration of metformin therapy significantly affects the development of vitamin B12 deficiency. Macrocytosis occurs in vitamin B12 deficient diabetic patients treated with metformin.