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## Comparison of vitamin B12 and folic acid serum levels in diabetic patients under metformin and other therapeutic regimens

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This study was designed to determine the effect of metformin on serum folic acid and vitamin B12 levels in type 2 diabetes patients. This epidemiological analytical (case – control study) assessed the patients referred to Golestan hospital diabetes clinic in Ahvaz in 2012-2013. Patients who were treated with metformin more than one year were considered as case group and patients who were treated with other anti-diabetic drugs and insulin as control group. Serum levels of vitamin B12 and folic acid were evaluated. In this study, 20 cases more than one year treated with metformin (14 female and 6 male, mean age of 53.75±9.32 years) and 20 patients with diabetes treated with other anti- hyperglycemic drugs were studied. There was no significant difference between the two groups in B12 and folic acid serum levels. Significant relationship was not shown between age and folic acid ( $p=0.47$ ) and vitamin B12 ( $p=0.76$ ) serum levels also between disease duration with them. The mean serum folic acid and vitamin B12 in men and women of case group and control group showed no significant difference ( $P=0.7$  and  $0.07$  respectively). In this study, there was no significant correlation between metformin consumption and serum vitamin B12 and folic acid levels. Age, disease duration, duration of metformin consumption, metformin dosage intake and BMI (Body Mass Index) had no effect on serum vitamin B12 and folic acid levels.

### Biography

Leila Yazdanpanah is a MD, diabetes PhD student in Ahvaz Jundishapur University of Medical Sciences Ahvaz, Iran. She works in Health research institute, diabetes research center. She has published papers in reputed journals and is active in diabetes research, diabetes associations and diabetes clinics.

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