

24th World Congress on **Pharmacology**
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Circulating betatrophin in relation to metabolic, inflammatory Parameters, and oxidative stress in patients with type 2 Diabetes mellitus

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Aims: Recently, it was suggested that betatrophin has a role in controlling pancreatic b cell proliferation and lipid metabolism, however, its role in human subjects has not been established yet. The predicting role of betatrophin and MDA along with other biochemical indicators in type 2 diabetes mellitus (T2DM) in a sample of the Iraqi population was examined in the present investigation.

Methods: A total of 31 patients diagnosed with T2DM and 30 adult subjects without diabetes were matched in age and gender in a case-control study. Logistic and linear regression models were performed

to examine the role of MDA and betatrophin in T2DM and triglyceride, respectively.

Results: The study confirmed a higher concentration of LDL (124.45 vs. 102.70 mg/dL; P $\frac{1}{4}$.001) and TG (191.13 vs. 103.83 mg/dL; P < .0001), insulin (18.40 vs. 10.97 mU/mL; P < .0001), and Hs. CRP (5.39 vs. 2.80 mg/L; P $\frac{1}{4}$.033) in diabetic patients compared to the controls. No significant difference in betatrophin and MDA was found between diabetic patients and non-diabetic healthy subjects. The study

Showed triglyceride as the only predictor of T2DM (P $\frac{1}{4}$.028). Similarly, total cholesterol (P < .0001), HDL (P $\frac{1}{4}$.001), LDL (P < .0003), and MDA (P $\frac{1}{4}$.010) were shown as predictors of triglyceride in diabetic patients.

Conclusion: The present study that triglyceride is a direct and MDA is an indirect predictor for T2DM.

Recent Publications:

1. Hu H, Sun W, Yu S, Hong X, Qian W, Tang B, et al. Increased circulating levels of betatrophin in newly diagnosed type 2 diabetic patients. *Diabetes Care* 2014;DC_140602.
2. Vetere A, Choudhary A, Burns SM, Wagner BK. Targeting the pancreatic b-cell to treat diabetes. *Nat Rev Drug Discov* 2014;13(4):nrd4231.
3. Yi P, Park J-S, Melton DA. RETRACTED: betatrophin: a hormone that controls pancreatic b cell proliferation. Elsevier; 2013.
4. [5] Zhang R, Lipasin. A novel nutritionally-regulated liver-enriched factor that regulates serum triglyceride levels. *Biochem Biophys Res Commun* 2012; 424(4):786e92.
5. Yi P, Park J-S, Melton DA. Perspectives on the activities of ANGPTL8/betatrophin. *Cell* 2014;159(3):467e8.
6. [23] Fenzl A, Itariu BK, Kosi L, Fritzer-Szekeres M, Kautzky-Willer A, Stulnig TM, et al. Circulating betatrophin correlates with atherogenic lipid profiles but not with glucose and insulin levels in insulin-resistant individuals. *Diabetologia* 2014;57(6):1204e8.

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7. Gusarova V, Alexa CA, Na E, Stevis PE, Xin Y, Bonner-Weir S, et al. ANGPTL8/ betatrophin does not control pancreatic beta cell expansion. Cell 2014;159(3): 691e6.

Biography

Bland Bayar has is expertise in management and Prevention of Diabetes mellitus. He is a head of non communicable disease in Duhok city north of Iraq (Kurdistan) he is a clinician and part time lecturer at shexan polytechnic college and has many activities in prevention of non communicable and specially diabetes mellitus. This research was done to evaluate the role betatrophin and it is relation to type 2 diabetes mellitus patients.

Notes: