



Correlation between ABO blood group and Dyslipidemia with Metformin therapy in newly diagnostic type 2 Diabetes Mellitus

Haithem R. Mohammed¹, Kadhim A. Kadhim², HasanMurtadha Alkutubi³, Abbas M. Rahmah⁴, SaadAbdal-Rhman Hussein⁵, Hayder Adnan Fawzi^{6*}

¹Department clinical pharmacy, Collage of pharmacy, University of Karbala, Karbala, Iraq.

²Head Department clinical pharmacy, Collage of pharmacy, University of Al-Mustansiriya, Baghdad, Iraq.

³CABMS, Al-Hussein Medical city, Karbala, Iraq

⁴Director of the national diabetes center, University of Al-Mustansiriyah, Baghdad, Iraq.

⁵Professor in pharmacology and toxicology, Al-Rafedin university, Baghdad, Iraq.

⁶Baghdad Teaching Hospital, department of clinical pharmacy, Baghdad, Iraq.

Abstract:Type 2 Diabetes mellitus is a globally growing chronic disease. Metformin the first line therapy for newly diagnosed type 2 diabetes mellitus. The etiology of type 2 diabetes including obesity, environmental effect, genetic susceptible, blood groups consider one of genetic susceptible. The aim of present study to investigate relationship between ABO blood group and dyslipidemia with metformin effect as first line treatment in type 2 diabetes mellitus newly diagnosed. Fifty five patients newly diagnosed type 2 diabetes mellitus collected in diabetic center Al- Hussein hospital by specialist physician according American Association Diabetes, from December 2015 to May 2016. Blood group A had more reduction in Total cholesterol (TC), and low density lipoprotein (LDL) compared with other blood groups. While B blood group offer only more significant reduction in Triglyceride (TG) compared the other blood groups. Patients with blood group A show improved response to metformin therapy by reduction of TC and LDL which was better than the improvement in lipid profile offer by other blood group (B, AB). Patients with blood group O show no significant effect on lipid profile with using metformin therapy.