Targeting mitochondria for preventing and treating Diabetes with natural compounds from food and nutrition

Jiankang Liu
Xi’an Jiaotong University, China

Insulin resistance is an important feature of Type 2 Diabetes and obesity. The underlying mechanisms of insulin resistance are still unclear. Mitochondrial dysfunction, including mitochondrial loss and over-production of oxidants, has been suggested to be involved in insulin resistance. Increasing evidence suggests that targeting mitochondria to protect mitochondria function could prevent and ameliorate various diseases associated with mitochondrial dysfunction to form a unique medicine, i.e., mitochondrial medicine. In this presentation, the author has summarized his recent studies with nutrients to target mitochondria by stimulating mitochondrial homeostasis to improve mitochondrial function and regulate redox balance for preventing and ameliorating Diabetes. Emphasis was put on natural compounds from food and nutrition including olive, bitter gourd and pomegranate to regulate mitochondrial biogenesis and degradation in cellular systems and in animal models. The in vitro and in vivo studies on the effects and mechanisms of mitochondrial targeting nutrients or their combinations may help us to understand the importance and mechanisms of mitochondrial metabolism, and to develop mitochondria-targeting agents for preventing and treating Diabetes.

Impact of clinical pharmacist counselling on disease outcome parameters and quality of life on uncontrolled Hypertensive Diabetic Dyslipidemia

Maha Aldraimly
King Saudi University, Riyadh

Hypertension and dyslipidemia are main complications of Diabetes. Hypertension prevalence 28.7% in US, Diabetes prevalence 7%, while prevalence of Diabetes in SA 27% and HTN 26%. Clinical pharmacist is health science discipline in which pharmacist provide patient care that optimizes medication therapy and promotes health, wellness and disease prevention. Intervention of clinical pharmacist with family medicine physician in managing and education of uncontrolled hypertensive, diabetic, dyslipidemic patients is expected to improve compliance with drug therapy, chronic disease outcome parameters and patient quality of life. 300 patients of uncontrolled hypertensive, diabetic and dyslipidemic are enrolled in this observational cohort study held in 3 ambulatory care centers at King Abdulaziz Medical city in Riyadh, 200 patients as sample, 100 as control. Quality of life measured at the base line and at the end of study for sample patients. Hba1c measured for each patients with BP and LDL with follow up with clinical pharmacist every 3 to 4 month for 5 visits, during this visit clinical pharmacist revise all of lab parameters for patients with medications file, doing education for patients, after finishing all visits of patients Bp, Hba1c and LDL will be measured to measure the outcome and improvement of quality of life, to show the effect of clinical pharmacist intervention and education on upper parameters.

Biography

Maha Aldraimly is Ambulatory care clinical pharmacist at National Guard Comprehensive specialized clinic in Riyadh. She is holding bachelor degree of pharmacy from KSU, Master degree of clinical pharmacy KSU in 2000. She has established Anti-coagulant clinic and has many publications. She is CPD coordinator, member of family medicine research committee, has established CDC clinic and has been a part of more than 160 international symposiums as speaker. She is currently trainer for pharmacy student at ambulatory care area and Professor at Prince Noura unive.

marsn-2008@hotmail.com