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Identifying and addressing barriers for insulin use in patients with type-2 diabetes mellitus

Ibrahim El Bayoumy
Tanta University, Egypt

Background: Diabetes mellitus type-2 is characterized by gradual decrease in insulin sensitivity in the peripheral tissues and liver (insulin resistance), followed by gradual decline in β -cell function and insulin secretion. Thus, patients with poor glycemic control require the use of insulin therapy to achieve the target of American Diabetes Association, recommending HbA1c to be less than 7% ($\geq 8\%$ despite of optimal doses of anti-diabetic drugs).

Aim: This study aimed to evaluate and addressing the barriers for use of insulin in type-2 diabetes mellitus patients, where their glycemic control is poor, i.e., HbA1c is $\geq 8\%$ despite of optimal doses of anti-diabetic drugs.

Research Design & Method: We surveyed 200 patients with type-2 diabetes mellitus, i.e., cross-sectional quantitative study; patients showed poor glycemic control HbA1c $\geq 8\%$, already treated with one or more oral agents, who recently prescribed insulin to control their metabolic status. Data were obtained by patient's interview using a validated questionnaire. The place of the study was in diabetes mellitus clinic in Farwaniyah Primary Health Care Center in Kuwait.

Result: Patients with type-2 diabetes failing to initiate the prescribed insulin therapy have reported misconception regarding fear of hypoglycemia in 49% of the total sample, pain from injections in 68% and self-blame about need for insulin i.e., sense of failure in 61% of total sample of study. Other factors were addressed like sensation by getting more severity of the disease, weight gain fear and other negative self-perceptions and attitudinal barriers were studied.

Conclusion: Reducing the negative influence of psychological insulin resistance (PIR) on treatment outcomes should be a clinical priority. Approaching and understanding the multifaceted and complex nature of PIR and discussing the etiology of every patient's PIR is the first important step. The incorporation of well-validated clinical measures assessing these barriers, as well as further research should be conducted on the impact of interventions to overcome such barriers. Clinicians should prescribe simple insulin regimen to decrease their patients' fear from dependency of insulin and the use of modern insulin analogs and insulin pen services, may greatly reduce PIR by mitigating the fear of life style changes and side effects, as well as social stigma associated with using insulin in a vial and syringe.

Biography

Ibrahim El Bayoumy holds Bachelor of Medicine and Surgery in Tanta University, Faculty of Medicine, Egypt (1989) followed by his Master's degree in Public Health, Preventive and Social Medicine (1996) and MD, PhD (Public Health, Preventive and Social Medicine) in 2003 from Tanta University and McGill University, Faculty of Medicine, Canada in Division of Clinical Epidemiology in Royal Victoria Hospital through double channel system as scholarship from Ministry of Education, Egypt. He is a Full Professor of Public Health and Community Medicine in Tanta University, Faculty of Medicine, Egypt. Presently, he is working in Ministry of Health in Kuwait as Consultant of Public Health and Preventive Medicine. He has published many research works in international journals and his research interests are in epidemiology of infectious diseases like HIV, tuberculosis, brucellosis and infectious hepatitis. He is a Reviewer of many national and international journals.

ibrahim.elbayoumy@med.tanta.edu.eg

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