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Prevalence of Iron Deficiency Anaemia and its associated risk factors Among Type 2 Diabetic Patients Attending the Diabetic Centre, Teaching Hospital Jaffna

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Both iron deficiency and iron deficiency anaemia (IDA) can impair glucose homeostasis by affecting the glycaemic control in diabetic patients. Objective of this study was to evaluate the prevalence of iron deficiency anaemia and its associated risk factors among type 2 diabetic patients, attending the Diabetic Centre, Teaching Hospital Jaffna. This is a descriptive cross-sectional study conducted by systematic random sampling of 300 type 2 Diabetic patients with interviewer-administered questionnaire. Serum albumin, Haemoglobin, Serum ferritin & Total Iron Binding Capacity levels were measured, and peripheral blood smear was prepared. IDA was defined as Hb and serum ferritin levels <130g/dl and < 20ng/ml respectively for males while for females were <120g/dl and < 10ng/ml respectively. Statistical analysis was carried out by multivariable logistic regression analysis. Prevalence of IDA was 10.7% and, 31.3% were males and 68.8% were females. Mean Hb and serum albumin levels of IDA patients were 9.74 (± 1.54) and 3.67 (± 0.64) g/dl respectively. Medians of serum ferritin and TIBC of IDA patients were 7.35 (4.65-8.30) ng/ml and 564.59 (459.33-746.41) μ g/dl respectively. All the patients with IDA exhibited microcytic hypochromic blood pictures. Those from rural areas (AOR= 5.020, 95% CI: 1.449– 6.23), consumed leafy vegetables ≤ 2 times a week (AOR= 12.052, 95% CI: 2.93 – 9.67), have DM for > 10 years (AOR= 4.032, 95% CI: 1.983 – 5.842) and with past family history of IDA (AOR= 7.32, 95% CI: 1.98– 7.45) were significantly associated with the development of IDA. The findings suggested that a high incidence of IDA is likely to occur in patients from rural areas, consumed leafy vegetables ≤ 2 times a week, with DM for > 10 years and with the family history of IDA. Thus, it is essential to evaluate Hb and serum ferritin levels in diabetic patients for a better quality of life.

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