Nonalcoholic fatty pancreas disease in relation to insulin resistance in Egyptian type 2 diabetic patients

Zeinab A. Hassan, Mohammed T. Abd Elhak**, Eman M. Ahmed*, Sara R. Abd Elkareem**
**Endocrinology department, **Radiology department*
Faculty of Medicine for Girls Al-Azhar University, Cairo, Egypt

Background:

NAFPD is an enigmatic manifestation of ectopic fat deposition in obesity. It is often an incidental finding on abdominal ultrasound, which is not explored further. NAFPD has recently gained much attention. Several Studies have shown an association between NAFPD and insulin resistance among T2DM patients.

Aim of the work:

Is to examine the presence of fatty pancreas and its relation to insulin resistance in Egyptian patients with type-2 diabetes.

Subjects and methods:

One hundred T2DM patients (73 females and 27 males) were included, divided into: NAFPD group: (N: 87 female: 63 male: 24), Non NAFPD group: (N: 13 female: 10 male: 3). In addition to a metabolic panel, glycosylated hemoglobin and serum fasting insulin level were measured. Liver and pancreas sonographic examinations were carried out simultaneously by high-resolution ultrasonography.

Results:

The proportion of NAFPD was 87%. WC was the most predictor of NAFPD. HOMA-IR was higher in patients with both NAFLD and NAFPD than either condition alone.

Conclusion:

Increased WC, WHR and increased prevalence of NAFLD were associated factors of NAFPD in T2DM patients. So, screening of NAFPD should be considered in patients with these conditions.

Key words:

NAFPD, insulin resistance, β-cell dysfunction.

Abbreviation:

NAFPD: Nonalcoholic fatty pancreas disease
NAFLD: Nonalcoholic fatty liver disease,
T2DM: type 2 diabetes mellitus
WC: waist circumference
WHR: waist-hip ratio.