Identification of LADA in normal weight diabetic Albanian population

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BACKGROUND

Diabetes is one of the most widespread endocrine disorders affecting millions of people worldwide. Latent Autoimmune Diabetes of Adults (LADA) constitutes 5-10% of diabetes in the population, the same number as type 1 diabetes (T1DM). Even though characterized by different characteristics from T2DM and T1DM LADA is often underdiagnosed.

OBJECTIVES

The purpose of this study is to identify the characteristics of LADA in the Albania population.
To determine what is the prevalence of LADA in patients diagnosed as type 2 diabetes mellitus in Albania.

MATERIAL AND METHODS:

An epidemiologic study was carried out on 149 newly-diagnosed diabetic patients aged from 30 to 60 years old living in Tirana. Age, sex, BMI, Waist circumference (WC), family history, blood pressure, total cholesterol, triglycerides, LDL, HDL, C-peptide, insulinemia and anti-GAD antibodies were measured.

The prevalence of LADA in our population was 18.7%. More frequent in males 60.7% than females 39.2%. Negative family history for diabetes was present in 60.7% of the LADA population and in 40.49% in the type 2 diabetes population. Obesity was present in 17.85% of the LADA group and in 33% of the T2DM. When the LADA group was compared to T2DM statistical significant differences were observed for: BMI LADA 26.07 kg/m² vs T2DM 28.02 kg/m², p = 0.040; WC LADA 97.4 cm vs T2DM 100.06 cm, p = 0.043; C-peptide LADA 0.42 vs 0.84 T2DM, p = 0.001. Negative correlation was observed between anti-GAD and WC (r=-0.346, p<0.001), anti-GAD and C-peptide (r=-0.174, p=0.034), anti-GAD and BMI (r=-0.402, p<0.001).

RESULTS

In our population LADA prevalence is 18.7%, more prevalent in males. Our data suggest that negative family history, low BMI and low waist circumference are important characteristics of the LADA population in Tirana. In the LADA population higher anti-GAD title are correlated with lower C-peptide levels.

CONCLUSION

In our population LADA prevalence is 18.7%, more prevalent in males. Our data suggest that negative family history, low BMI and low waist circumference are important characteristics of the LADA population in Tirana. In the LADA population higher anti-GAD title are correlated with lower C-peptide levels.

REFERENCES

- Li et al. BMC Endocrine Disorders 2013, 13:10 http://www.biomedcentral.com/1472-6823/13/10
- HLA-DR, HLA-DQB1 and PTPN22 gene polymorphism: association with age at onset for autoimmune diabetes Anna Okruszko, Barbara Szepiecowska, Natalia Wawrusiewicz-Kuryłonek, Maria Górka, Adam Kętowski, Małgorzata Szelachowska