Identification of LADA in normal weight diabetic Albanian population

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BACKGROUND

Diabetes is one of the most spread 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 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 neo-diagnosed diabetic patients aged from 30 to 60 year 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.

LADA difference parameters and DMtip2		
	LADA	DMtip2
Average HbA1c(%)	7,87	7,99
Average cholesterol level	211,41	227,01
Mean HDL cholesterol level	42,20	41,69
Average LDL cholesterol level	144,18	147,54
Average triglyceride levels	160,59	165,2
Average perimeter Abd	97,4	100,06
Average C-peptide level	0,42	0,84
Average level Insulinemia	26,8	31,15
Average AC-level anti-GAD	6,83	0,57

LADA difference parameters and DMtip2		
	LADA	DMtip2
Prevalence%	18.7	81.2
Prev by sex		
Males (%)	60.7	53.69
Females (%)	39.2	27.5
Average age (years)	43,16	43,69
	30-61	30-62
The strange story (%)		
The present	39,3	59,51
Absent	60,7	40,49
BMI (%)		
Underweight	0	0
Normopeshë	32,14	23,14
Overweight	50,00	42,97
Obese	17,85	33,00
Many obese	0	0,008
Average BMI	26.,07	28.02
BMI limits	21-35	21-42

RESULTS

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).
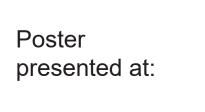
CONCLUSION

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

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