

DIABETES IN THE ETHIOPIAN JEWISH COMMUNITY OF HADERA: PREVALENCE, ATHEROSCLEROTIC RISK FACTORS



Anat Jaffe¹, Hilel Vardi², Boris Levit¹, Yasmin Alkalay

1- Diabetes and Endocrinology, Hillel Yaffe Medical Center Diabetes
 2- Epidemiology, Ben Gurion University
 3- Statistics, Tel Aviv University

Background and Aims:

Studies on the prevalence of diabetes in the Israeli Ethiopian immigrant population indicate a rapid growth as a function of years after immigration. All these studies, however, were performed on people in transition; i.e. absorption camps, agricultural schools, etc., in which the particular conditions of life may have affected the development of diabetes.

Materials and Methods:

In this study, which is part of the "Tene Briut" project,[#] we examined the prevalence of diabetes and atherosclerotic risk factors in a representative sample aged 15 years or older from the Jewish Ethiopian community residing in Hadera. The diagnosis of diabetes was made based on fasting blood glucose level and post 75-gram oral glucose tolerance test [OGTT]. Blood pressure measurements were taken after 10 minutes of rest twice before blood sampling.

Definitions:

Diabetes mellitus: diabetes by anamnesis, drugs or blood results.
 IFG: No diabetes by anamnesis or drugs, fasting glucose between 110 to 125 and post load glucose <140
 IGT: No diabetes by anamnesis or drugs, fasting glucose < 110 and post load glucose between 140 and 199
 Hypertension: hypertension by anamnesis or drugs and in study diastolic blood pressure values >89mmHg or systolic >139 mmHg.

Results:

Up to now, we studied and analyzed 159 individuals randomly selected out of the 330 subjects of the total sample. The characteristics of the sample are presented in Fig-1. Twenty-eight subjects were found to have diabetes (17.6%), see Table-1 and Fig-2. Ten out of them were newly diagnosed (35%). Diabetes is correlated with age [p=0.001] but not with sex. Sixty-eight subjects out of 159 were found to have hypertension (42.8%), 63% were newly diagnosed. Hypertension [Diastolic and Systolic] is more prevalent in men than in women [p=0.01] and is correlated with age [P<0.00]. The prevalence of diabetes mellitus and hypertension according to age groups is presented in Fig-2.

The BMI of the entire sample was 24.1 4, 24.4 4 for women and 23.8 3 for men while it was only 19 on arrival to Israel. BMI in the diabetic patients is 27.5 5, 27.34 in the IGT, and 24.3 4 in the IFG group. BMI is significantly correlated with diabetes, IFG, triglycerides, fast and post load insulin and systolic hypertension. More information regarding the prevalence of obesity, IFG, IGT and hyperlipidemia is in Fig-3. Fast and post OGTT serum insulin concentration were 12.1 to 51.9 for normal OGTT subjects, 18.7 to 55.7 for IFG, 17.2 to 141.6 in the IGT and 12.8 to 58.5 in the diabetic patients.

Conclusions:

This is the first report from the study, which is not finished yet. Nevertheless, we can conclude that the Israeli Ethiopian community at large developed in a short period i.e., ten years since their arrival to Israel; obesity, high prevalence of diabetes and other atherosclerotic risk factors. The Israeli Ethiopian immigrants are at high risk for cardiovascular diseases. This calls for in depth and culturally appropriate intervention programs in parallel to continuing study of the nature of the disease.

* Project for education, prevention, detection and treatment of diabetes in the Ethiopian immigrants to Israel.

Fig-1: The characteristics of the sample

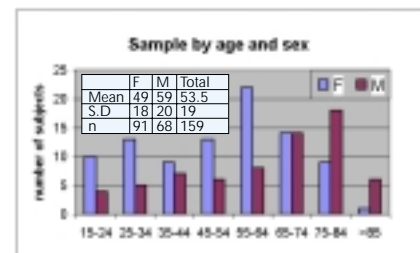


Fig-2: The prevalence of diabetes mellitus and hypertension according to age group

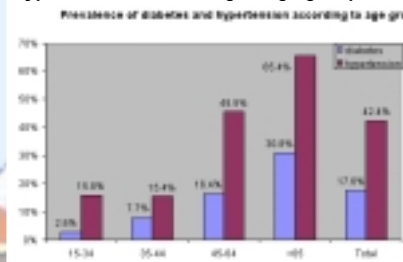


Table-1: Mean age of diabetes, Diastolic and Systolic Hypertension

	Diabetes			Diastolic hypertension		Systolic hypertension	
	F	M	Total	F	M	F	M
Mean	61	69	64	46	64	60	67
S.D	10	20	15	14	13	9.3	16
n	17	11	28	8	10	26	32

Fig-3: Prevalence of obesity, IFG, IGT and Hyperlipidemia

