PREVALENCE AND CLINICAL PATTERN OF DIABETES MELLITUS IN SOUTH-WEST SHEWA REGION, ETHIOPIA

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Comparison between DM 1 and DM 2 population data

	DM 1	DM 2
Number of patients (M/F)	38 (22/16)	85 (62/23)
Mean age (M/F)	29.1 / 31.2	54.8 / 60.9
Hypertension % (M/F)	5 / 12	35 / 48
Proteinuria % (M/F)	27 / 33	59 / 45
Renal failure % (M/F)	not determined	26 / not determined
ECG abnormalities %	not determined	68
Echocardio abnormalities	not determined	74
Retinopathy: mild (M/F)	11 / 25	30 / 50
Retinopathy: severe (M/F)	0 / 0	18 / 0
Comparison with normal population (M/F)		
Blood pressure	n.s. /increased	increased / increased
BMI	n.s. / n.s.	increased / increased
Comparison between DM1 and DM2 (M/F)		
Blood pressure		increased / n.s.
BMI		increased / increased

legend: n.s. = not significant

Objectives
To describe the clinical pattern of type 1 and 2 diabetes mellitus (DM1 and DM2) in rural population of Ethiopia.

Methods
123 consecutive patients examined in Wolisso hospital, Ethiopia, from April 2006 to August 2008 with DM underwent physical examination (measurement of BP, height and weight with calculation of BMI, ophtalmoscopy) and simple laboratories analysis (proteinuria, dosage of plasmatic urea, creatinine and glucose).
In a minority of DM2 patients, ECG and echocardiography were performed.

Results
38 patients (16 f, 22 m) were found affected by DM1, and 85 (23 f, 62 m) with DM2. Mean age was 29.1 and 31.2 for patients with DM1 and 54.8 and 60.9 (females and males respectively) for patients with DM2. Comparison with normal population showed significant increase of BP in females with DM1, significant increase of BP in females and males with DM2, significant increase of BMI in males and females with DM2. Comparison between DM1 and DM2 showed significant increase of BP in males with DM2 and of BMI in males and females with DM2. 48% and 35% of DM2 population (females and males), and 12% and 5% of DM1 population were affected by hypertension too. 45% and 59% of cases with DM2 and 33% and 27% (females and males respectively) with DM1 had proteinuria; 26% of males with DM2 had increased creatinine. Creatinine was not performed routinarely in DM1 population so analysis was not possible. No significant differences were found between DM1 and DM2 on albuminuria, creatinine and urea. In DM2 abnormalities were found on ECG in 68% of cases and on echocardiography in 74% of cases, mainly left ventricular hypertrophy and overload. Ophtalmoscopy in DM2 patients showed 19% of cataract, all in males; abnormal fundus pattern was found in DM2 in 50% of females (mild arteriopathy) and in 48% of males (30% mild and 18% severe arteriopathy); in DM1 abnormal fundus was found in 25% of females and 11% of males, all mild arteriopathy.

Conclusions
Our data confirm that in an african rural population DM2 affects mainly older population and is associated with an increase of BMI compared with normal and DM1 population, even in absence of overweight. Compared with normal population, increased BP values and hypertension are frequently associated with both types of DM, but mainly DM2. Many diabetic patients show significant cardiac, ocular and renal damage, most of which could be prevented by the improvement of blood sugar control.

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