



## **Cardiovascular characteristics of people in the village of Kouklia, Paphos district**

On the occasion of a Mobile Clinic expedition to the village of Kouklia in the district of Paphos, a study was conducted by medical students and staff under the supervision of Professor of Cardiology Joseph Moutiris.

Medical students involved: Afridi D., Al Musilhi E., Anverdeen F., Eid O., Eid R. Elmejrab A., Ibrahim S., Lam A., Macaron M., Mensah I., Ofek T., ZenEddin L.

Staff involved: Aristotelous M., Papdopoulou N., Krasidis C.

### **Introduction**

Forty-eight people, living permanently in Kouklia village, district of Paphos, were examined on Sunday 5 March 2023, by 12 medical students of the University of Nicosia Medical School under the supervision of Professor of Cardiology Joseph Moutiris. The mean age of the people examined was 64.2 years (minimum 31, maximum 93). Twenty-five of them were men and 23 women. The main cardiovascular risk factors and medications taken were noted, while blood pressure, body weight and height were measured, and BMI was calculated for each one of the participants.

### **Past Medical History**

The participants were screened for common risks such as smoking, hypertension, diabetes and presence of coronary artery disease.

Forty participants (83%) had at least one risk factor. More specifically, 29 persons reported history of hypertension (60%), 18 had history of diabetes (37%), 12 were smokers (25%) and 6 had history of previous CAD (12.5%). The mean age of the remaining 8 participants, not having history of any cardiovascular risk factor, was 54.1 years.

Five persons had 3 cardiovascular risk factors and specifically smoking, hypertension and diabetes (10.4%) and 9 had two risk factors, hypertension and diabetes (18.7%).

### **ECG characteristics**

ECG was performed to all participants. The rhythm was sinus in 47 of them and dual pacing in one. One person had signs of left ventricular hypertrophy based on Sokolow-Lyon criteria. This person was found to have elevated blood pressure on examination without reporting a history of hypertension. He was advised to consult his doctor in order to arrange a cardiac echo study. The heart rate was within normal range (60-100) in 47 persons. In one person, heart rate was 50 bpm, and the PR interval was prolonged to 220 ms indicating first degree AV block. He has been taking beta blockers for hypertension and reported symptoms related to bradycardia. He was advised to consult his personal doctor for possible reduction of the dose of the beta blocker or for possible replacement with another antihypertensive.

### **Blood Pressure**

All participants had their blood pressure measured. Blood pressure was considered normal when it was less than 140/90 mm Hg and abnormally elevated when equal or more than 140/90 mm Hg. Based on these criteria, 34 participants had normal values of blood pressure (70.8%) and 14 had abnormally elevated blood pressure (29.2%). Of those with elevated blood pressure, 9 had a history of hypertension and were already taking antihypertensive medicine whereas 5 had no history of hypertension and were not taking any antihypertensives. They were advised to consult their personal doctors.



### **Body Mass Index**

All participants had their body weight and height measured and their BMI calculated. Only 11 of them had a normal BMI (23%). Fifteen or 31% were overweight and 22 or 46% were found obese. They were advised to consult their personal doctor and possibly a dietician for appropriate management. Of the 22 persons found on examination to have obesity, 17 had history of hypertension (77%) and 11 had history of diabetes (50%), whereas 5 had neither history of hypertension nor diabetes (23%).

### **Conclusions**

The main conclusions that emerge from the examination of the 48 persons from Kouklia village in the district of Paphos, a sample of almost 5% of a population of 988 persons, are the following:

1. 96% of the persons examined had a normal ECG.
2. 83% of the study population had at least one cardiovascular risk factor and specifically, smoking, hypertension, diabetes or previous CAD.
3. 77% of the people examined were found to be either overweight (31%) or obese (46%).
4. 29% of the participants had abnormally elevated blood pressure with the cutting point being 140/90mm Hg.
5. 25% of the population are active smokers.

Based on the above sample and findings, it is concluded that the population of Kouklia village has a high prevalence of cardiovascular risk factors and that measures should be taken to reduce the cardiovascular risk.