Objective

The objective of this studywas to investigate the prevalence of main CVD risk factors and to assess cardiovascular risk in a cohort of men and women with arterial hypertension (AH) aiming to develop a strategy of primary CVD prevention.

Six centers from three countries took part in a cross-sectional, multicenter cohort study: 4 cities from Azerbaijan (Baku, Ganja, Sheki, Lenkoran), 1 from Georgia (Marneuli) and 1 from Russia (Derbent). The total number of patients was 760, including 503 women (66.2 %) and 257 (33.8 %) men, with the average age of 53 ± 1.15 years (from 30 to 59 years).

Material and methods

All patients were questioned using international ARIC questionnaire, underwent blood pressure, heart rate, and anthropometric parameters measurement and ECG registration at rest. Fasting blood levels of total cholesterol and glucose were determined. Total cardiovascular risk was estimated using the European SCORE scale.

Results

Mean blood pressure in the examined groups of men and women met the criteria of AH 2–3 stages, it was accompanied by hypertrophy of the left ventricle in 40–70 % of cases, which is known to increase the risk of cardiovascular complications. It has been shown that on average every second patient received combined antihypertensive therapy, while monotherapy was performed in 45 % of patients, and 15 % of patients did not adhere to therapy at all. Among the socio-demographic indicators, attention is drawn to the high incidence of non-working men with hypertension in all cities, the majority of women were housewives. The results of the study showed that the smoking rate in men with hypertension was between 19 % and 60 %, depending on the region. In the cities of Azerbaijan, the frequency of alcohol abuse was not higher than 10 %, whereas in contiguous states this indicator was 2–2.5 times higher in cohorts of men with AH. Abdominal obesity was one of the prominent risk factors for both men and women with AH. Diabetes mellitus in men was found in 9 % of cases, and among women this value was 15 %. The average total blood cholesterol levels of patients with AH met the criteria of mild hypercholesterolemia. Depending on the region and gender, high cardiovascular risk was detected in 20 % — ​60 % of cases. Every fourth man and every third woman had very high cardiovascular risk.

Conclusion

For the purpose of primary prevention of cardiovascular complications in persons with hypertension, it is necessary to provide effective control of blood pressure, which will also lead to regression of left ventricular hypertrophy. Along with this, it is necessary to conduct serious work among men to combat bad habits, to correct metabolic disorders, as well as total blood cholesterol and glucose levels. Total cardiovascular risk assessment can serve as a good indicator for estimation of multifactorial prophylaxis efficacy in patients with AH.

Key words

Primary prevention, risk factors, arterial hypertension, cardiovascular risk.