BULGARIAN HYPERTENSION LEAGUE

Bulgaria, Sofia 1606, 3 St. Georgi Sofiiski Str., MMA

e-mail: hypertensionleaguebg@gmail.com

website: www.hypertensionleaguebg.info

mobile: +359 888 28 34 91

PREVALENCE OF ATRIAL FIBRILLATION IN HYPERTENSIVE SUBJECTS: WHAT IS MORE IMPORTANT – BLOOD PRESSURE VALUES OR DURATION OF HYPERTENSION?

Y. Yotov *, Sv. Torbova**, K. Ramshev[$], Sn. Tisheva[#]

**** Second Cardiology Clinic, UMHAT Sv. Marina, Varna, Bulgaria***

***** Tokuda Hospital, Sofia, Bulgaria***

$ Military Medical Academy, Spfia, Bulgaria

 # Medical University, Pleven, Bulgaria

- Hypertension (HTN) increases the risk of atrial fibrillation (AF) by about twofold.
- HTN accounts for more cases of AF than any other risk factor.
- The coexistence of HTN and AF will double the risk for overall mortality, death from stroke, heart failure, the hospitalization for heart failure, and triple the risk for any cardiovascular event.

Objective: to evaluate the predictive factors for AF frequency in hypertensive patients.

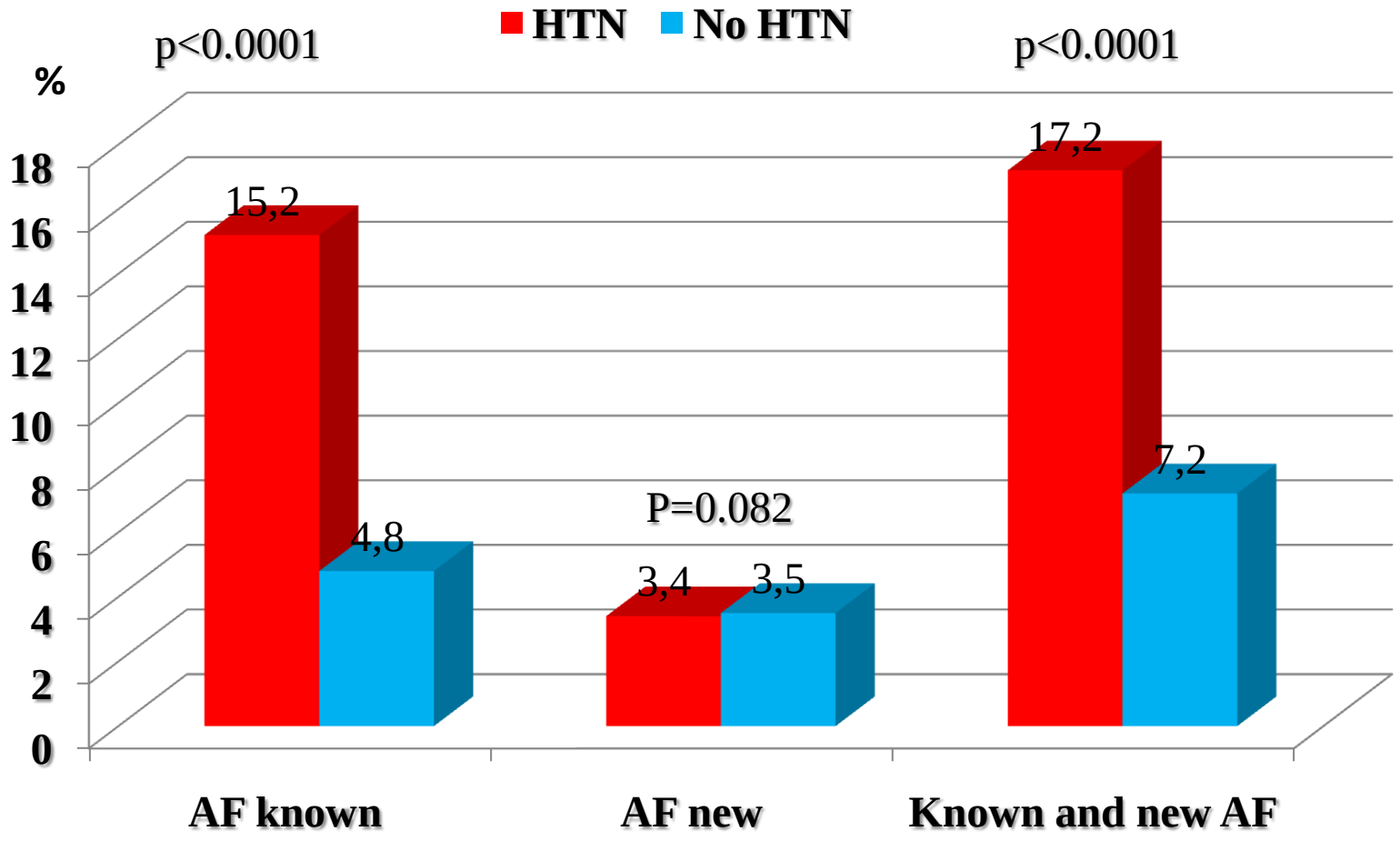
Design and methods: Overall, 3684 volunteers from 11 cities in Bulgaria participated in a cross-sectional study on the World Hypertension Day in 2014 and 2015. Same structured questionnaire was applied in the two surveys, with questions about demographic characteristics, registered episodes of AF, symptoms, treatment, diabetes mellitus, and home blood pressure measurement (BP). The BP, heart rate (HR), weight and waist circumference (WC) were measured, BMI was calculated.

Results:

The mean age of the participants was 59.81±16.44 years,, median age 63 years, with no gender difference (60.15 years in males vs 59.54 years in females, p=0.2). 55% were female.
HTN was present in The median duration of HTN was 9 years, IQR 11 years, range from 1 to 53 years.

Overall, the new AF was detected in 4% of all participants, known AF 11%. The prevalence and incidence of AF by HTN status is presented on Fig. 1.

Fig. 1. Prevalence and Incidence of AF in Bulgarian population



The prevalence of AF was not significantly correlated with the BP values or with the quartiles of the BP distribution. However, the mean duration of AH was significantly longer in the patients with the arrhythmia compared to those in sinus rhythm (Fig. 3).

Fig. 2. Mean SBP and DBP in participants in cross-sectional study

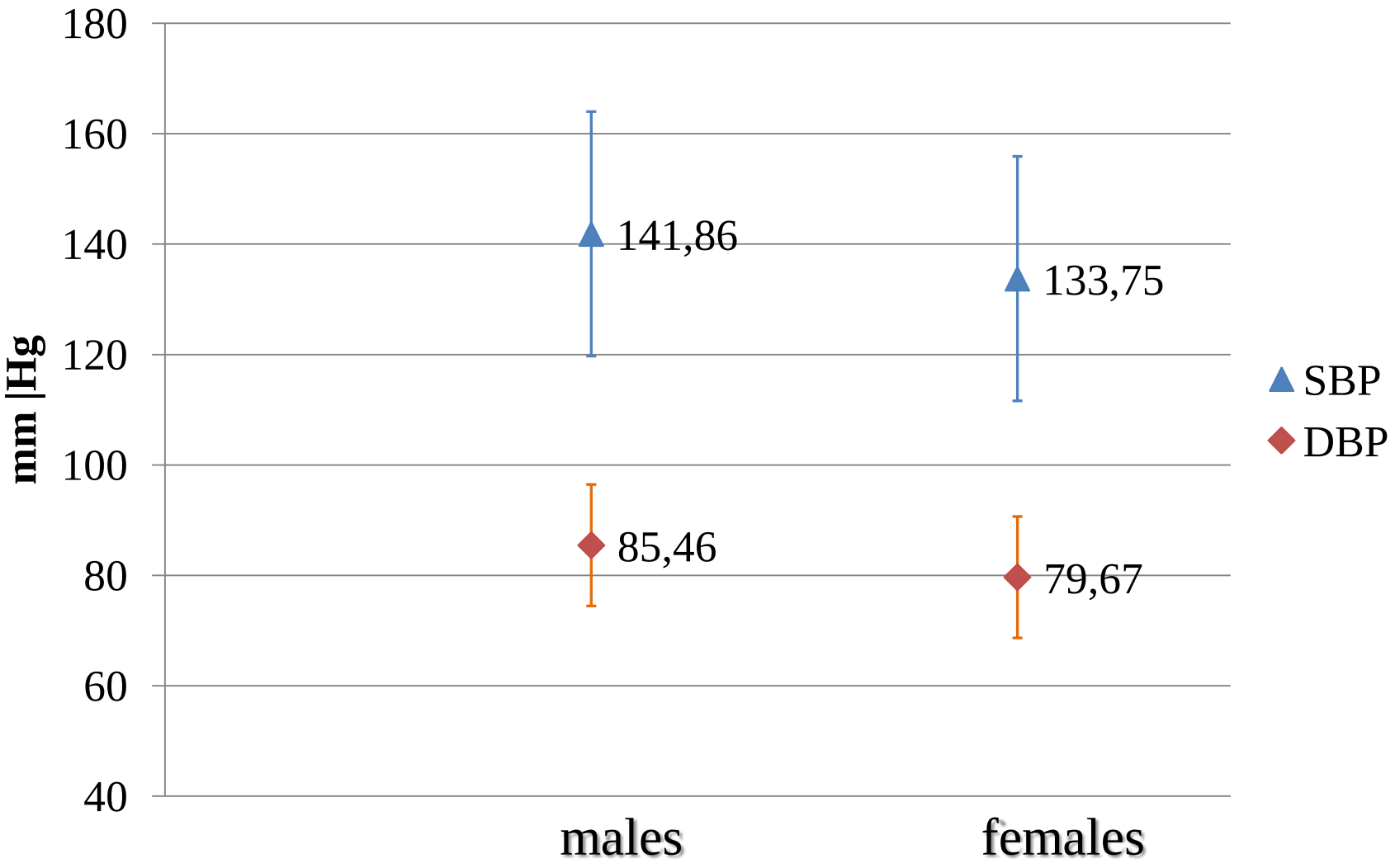
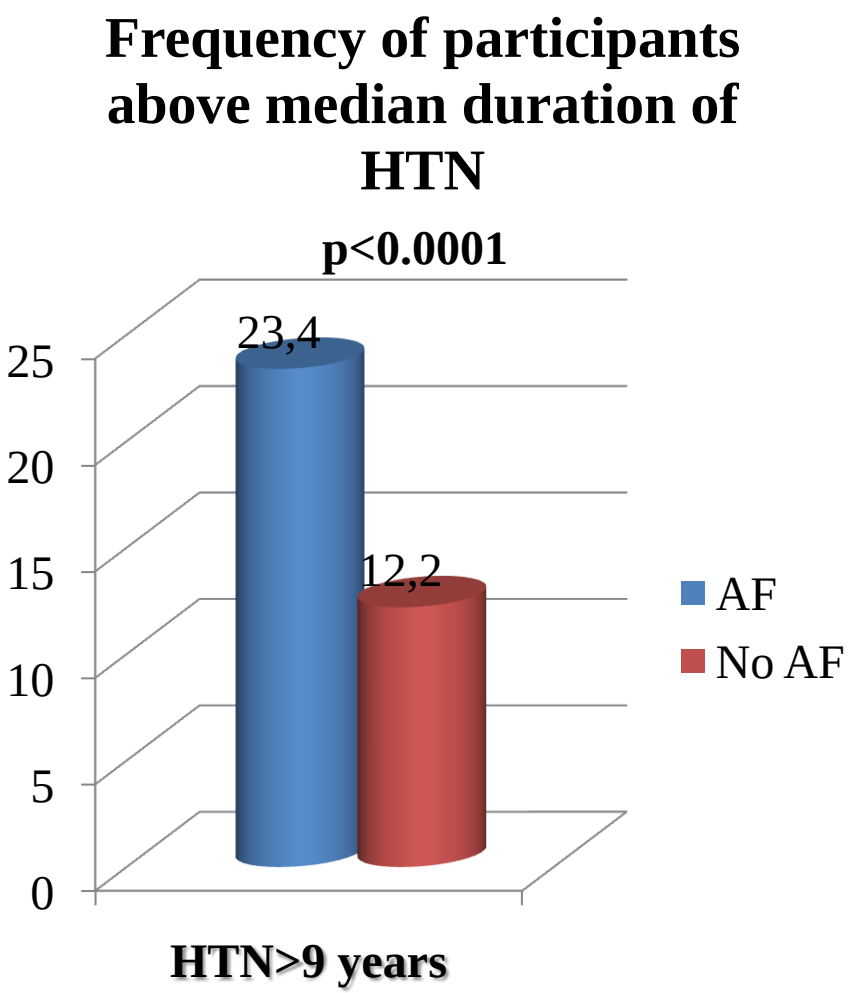
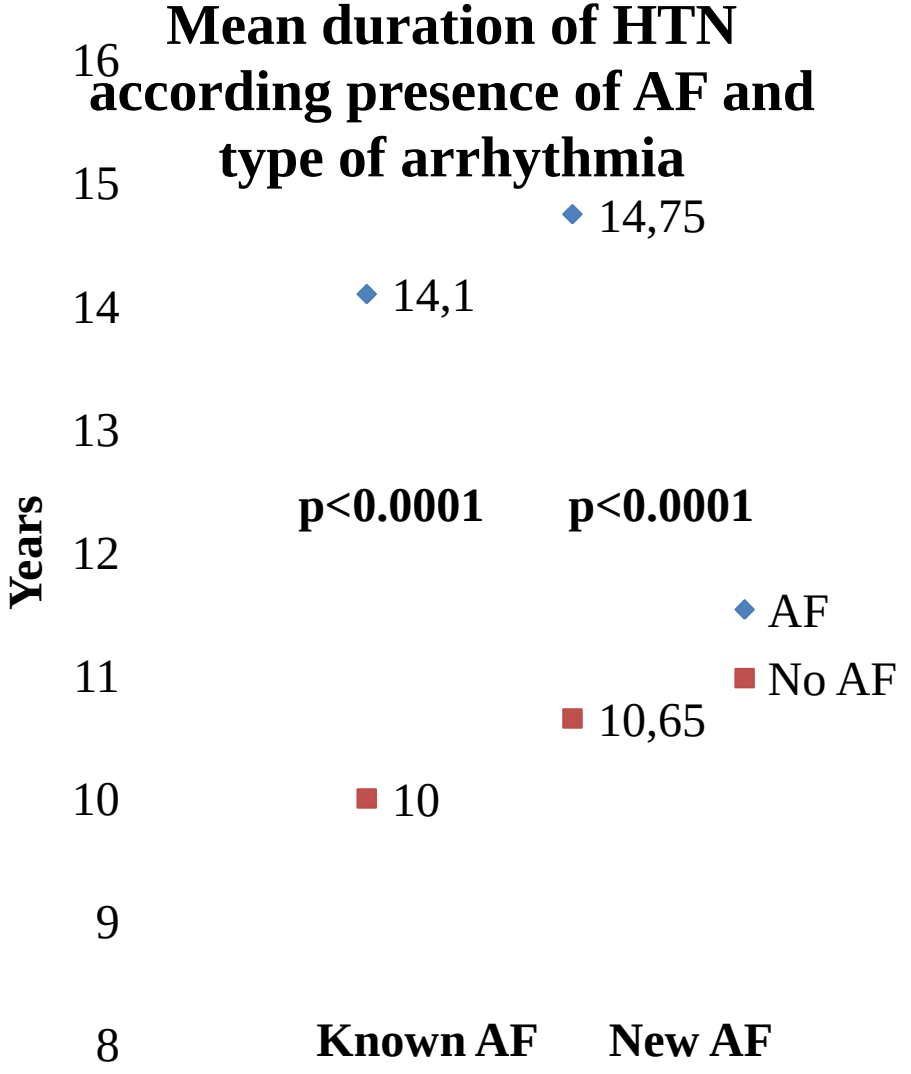


Fig. 3. Mean duration and proportion of participants above median (>9 yrs)





Logistic regression analysis of occurrence of AF in Bulgarian population

Parameter	OR (95% CI)	p
Constant	0.037	<0.0001
Age (per year)	1.027 (1.014-1.04)	<0.0001
Waist circumference		
2nd vs 1st quartile	0.52(0.33-0.83)	0.006
3rd vs 1st quartile	0.64 (0.41-0.98)	0.042
4th vs 1st quartile	0.67 (0.44-1.013)	0.057
Duration of HTN >9 yrs	**2.026 (1.52-2.69)**	**<0.0001**
Diabetes mellitus (yes/no)		0.104
Gender (male/female)		0.113
SBP (quartiles)		0.132
Year of examination		0.807

Conclusions:

- The prevalence of AF in an urban hypertensive population was approximately 1 in 8.
- Neither the present values of BP nor the severity of AH at the moment had effect on the occurrence of AF.
- The most powerful predictor of AF was the duration of AH more than the median.

Address for contact: y_yotov@yahoo.com