

Description of patients with controlled arterial hypertension in an outpatient setting

Tulaboeva G.M., Kamolov B.B., Nuralieva D.M., Abdukodirova N.M.

Republic of Uzbekistan, Tashkent Institute of Postgraduate Medical Education, Republic of
Uzbekistan
Andijan Medical Institute Republic of Uzbekistan

Abstract

The pharmacoepidemiological status of patients with AH was assessed through the medical records of 298 patients. The results obtained proved in our scientific study that the incidence rate of AH in our elderly patients was 51.2% higher than in patients under 60 years of age. AH was found to be 48% higher in women than in men. Female patients were found to be 45% higher in blood pressure than men. 46.7% in elderly patients. According to scientific studies, patients with AH received antihypertensive drugs as recommended by the International Society of Cardiology in the diagnosis, prevention and treatment of AH, but the daily dose was insufficient

Keywords: Arterial hypertension, pharmacoepidemiological, blood pressure, antihypertensive drugs

Relevance. Despite the existence of a number of scientific studies devoted to the treatment, prevention and effective treatment of arterial hypertension (AH), its prevalence remains high. Currently, AH accounts for 20-40% of adults in developed countries. In the Russian state 1.5. mln 800,000 of them are under the control of dispensaries [1-4]. The incidence of this disease in older patients at high rates is characterized by morphophysiological changes that appear in these people with age [2]. It is a sad fact that high blood pressure is accompanied by injuries to a number of target organs. The cause is characterized by the occurrence of serious complications, namely myocardial infarction, stroke, encephalopathy, heart and kidney failure [1, 2, 3]. Therefore, it can be assumed that proper pharmacotherapy of this disease will be a barrier to causing serious complications.

The purpose of the study: Analysis and evaluation of hypotensive pharmacotherapy in the proper control of arterial blood pressure in patients with AH.

Research materials and methods

In assessing the pharmacoepidemiological status of patients with AH, medical records of 298 patients under control in the multidisciplinary polyclinic No.1 of Asaka district of Andijan region were examined. Our study consisted of 2 phases. In the first stage, specially prepared survey was used, to determine the sex, age, education, and marital status of the patients. Living conditions with the show, as well as the request of doctors were taken into account.

In the second stage, the level of awareness of patients about AH disease, the level of treatment, blood pressure control were studied.

Statistical processing of the obtained results was carried out on a computer "Pentium IV" using STATISTICA version 6 "StatSoft" and Biostat software packages. The arithmetic mean (M), the standard deviation (SD), and the arithmetic mean error (m) were calculated. The difference was determined according to the Student's criterion in the case of normal distribution of the sign. All indicators are given in the form of the arithmetic mean standard deviation ($M \pm SD$), the sign change in the form of the mean change% \pm the mean change error ($\Delta\% \pm m$) differences in $p < 0.05$ were considered reliable.

Results and discussions

In our study, we found the following information about the prevalence of AH: 34% (n = 101) in patients under 60 years of age and 66% (n = 197) after age 60, which means that the

incidence of AH in our elderly patients was less than 60 years which is 51.2% higher than in patients.

When we analyzed the incidence of AH in relation to the sex of patients, we found that the incidence of AH was 40% (n = 120,) and 60% in women (n = 178,). This showed that AH was 48% higher in women than in men.

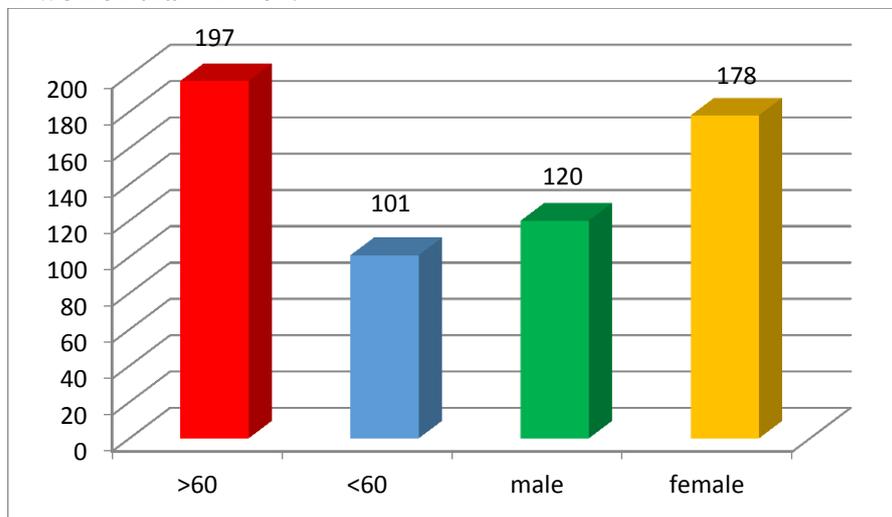


Figure.1. Status of AH according to the age and sex of patients (n)

According to our analysis, 201 (67%) of our 298 patients with AH were aware of AH. At the same time, 69% (n = 139) of our female patients were aware of the increase in blood pressure, while this figure was 26% (n = 62) in men. A similar pattern was observed in the analysis of patients' age (68% (n = 137)> 60, 32% (n = 64) <60 patients).

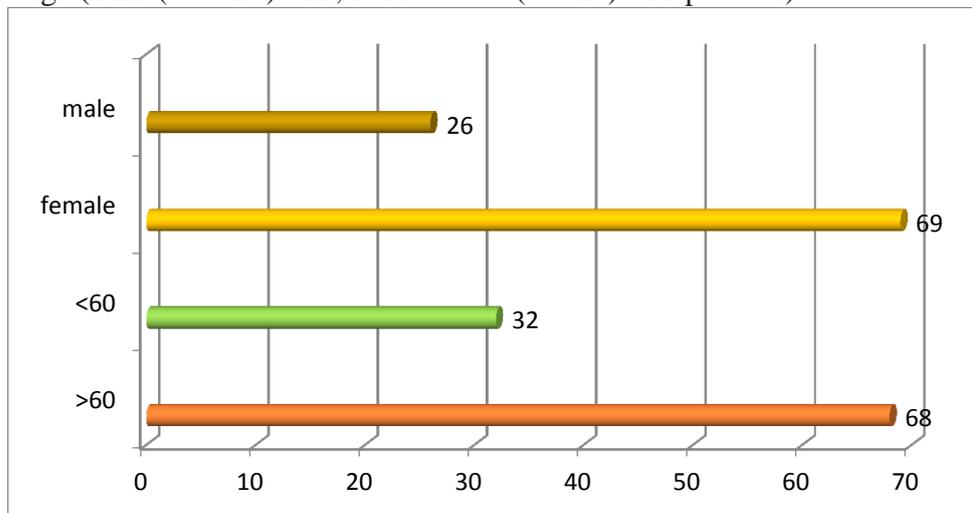


Figure 2. Illness awereness of AH patients (%)

We conducted an analysis of the intake of antihypertensive drugs to assess the actual situation in the pharmacoepidemiology of patients with AH.

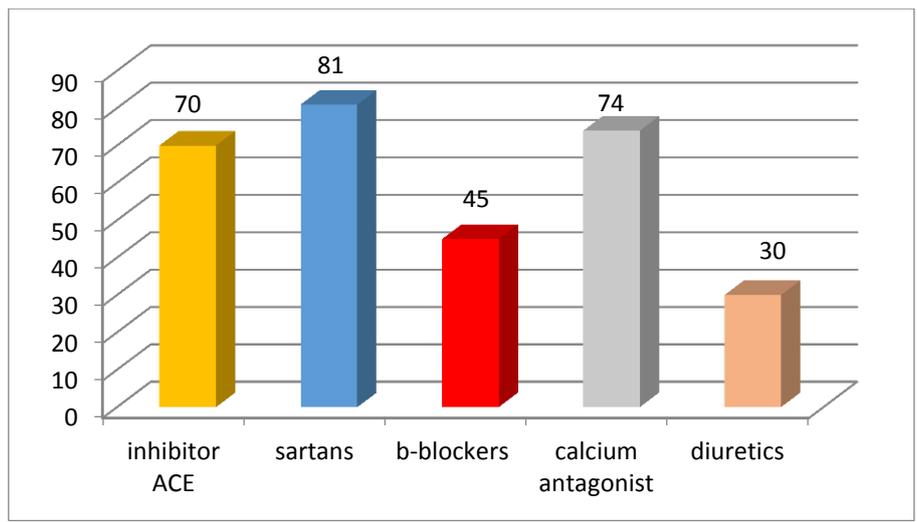


Figure 3. Analysis of antihypertensive drugs in patients with hypertension (n)

The results showed that the enalapril group (58.6%) was the most widely used drug from patients with ACE inhibitors, followed by the lisinopril group (20%), and the least recommended group was ramipril (9%). When analyzing the intake of ACE inhibitors, it was found that the average dose of drugs in the enalapril group was 10.1 ± 5.4 mg, drugs of the lisinopril group 10.4 ± 5.0 mg, captopril 77 ± 42.5 mg and finally the daily dose of drugs of the ramipril group 5 ± 2.5 mg.

Table 1.

Analysis of the amounts of drugs taken by patients with AH

Nº	Medication quantities	Average amount
1	lysino pril	10.4 ± 5.0
2	enalapril	10.1 ± 5.4
3	captopril	77 ± 42.5
4	ramipril	5 ± 2.5

In 8% (n = 6) cases of calcium antagonists, verapamil group-specific drug, short-acting nifedipine group 60% (n = 44), lerconidipine 1% (n = 1) and 31% (n = 23) amlodipine were recommended (Fig. 4).

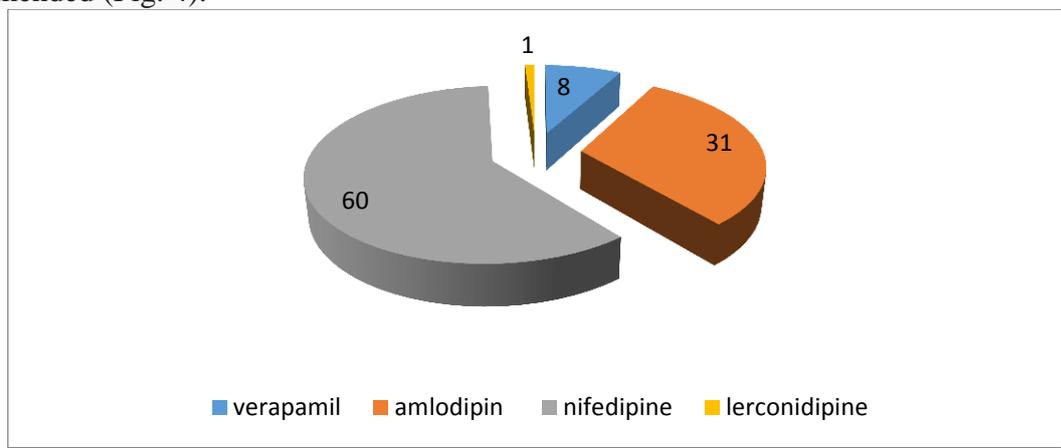


Figure 4. Analysis of drugs taken in patients with AH (%)

Analysis of the amount of drugs taken by patients with AH (mg)

Nº	Medication quantities	Average amount
1	Nifedipine	14 ± 8.5
2	Amlodipine	5.3 ± 2.5

3	Lerconidipine	5±0
4	Verapamil	80±33

Forty-five of our patients received antihypertensive drugs from the group of beta-blockers, of which 40% (n = 18) atenolol, 35.6% (n = 16) bisoprolol, 11% (n = 5) karvidilol, 4.4% (n = 2) metoprolol and 8.8% (n = 4) of nebivalol.

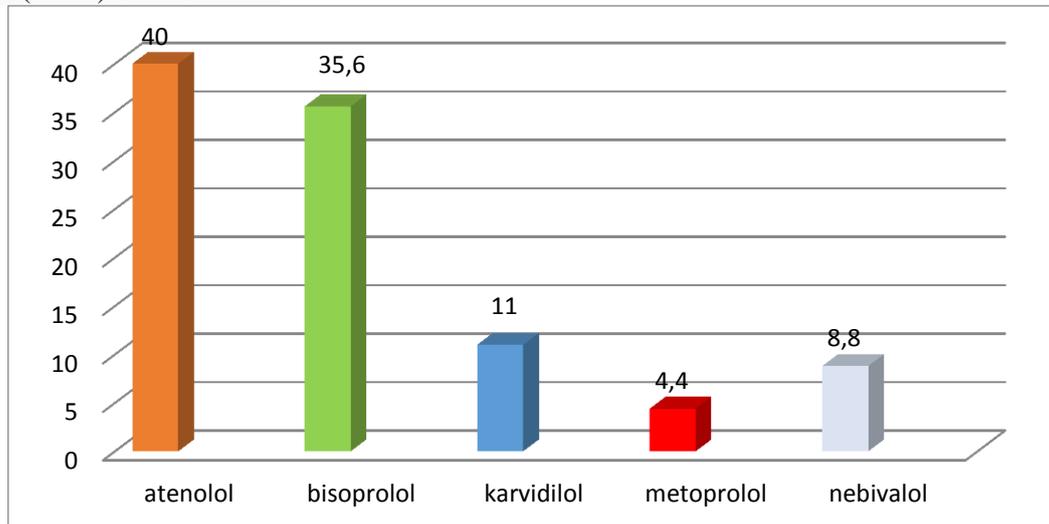


Figure.5. Analysis of drugs taken in patients with AH (%)

Table 3.

Analysis of the amount of drugs taken by patients with AH (mg)

№	Medication quantities	Average amount
1	karvidilol	6.9 ±3.1
2	metoprolol	37.5±12.5
3	atenolol	54±27
4	bisoprolol	4.7±1.5
5	nebivalol	3.75±1.25

Thirty of our patients with AH received diuretic medications, accounting for 10.2%. Of these, 21 (70%) patients received an average of 16.9 ± 6.0 mg of the drug in the hydrochlorothiazide group, while 9 (30%) patients received an average of 7.5 ± 2.9 mg of the drug belonging to the torasemide group.

It was observed that 81 of our patients with AH received antihypertensive drugs from the sartans group. The most commonly used drug was the losartan group in 45 patients (55%), the valsartan group in 30 patients (37%) and the antihypertensive drug in the candesartan group in 6 (7.4%) patients.

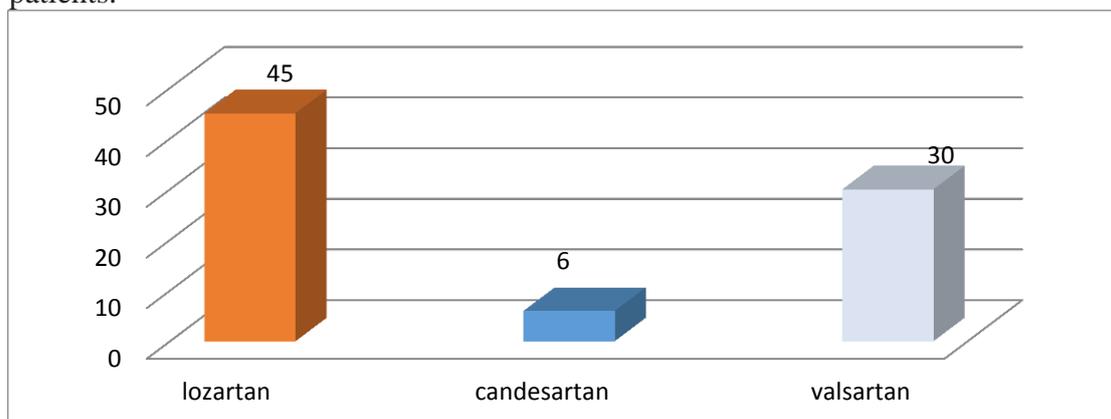


Figure.5. Analysis of drugs taken in patients with AH (n)

Table.4.

Analysis of drugs taken in patients with AH (mg)

№	Medication quantities	Average amount
1	Losartan	74.4 ±30.5
2	Valsartan	62±23
3	Candesartan	12±4.0

According to the results, our AH patients did not receive adequate daily doses of antihypertensive drugs. Unfortunately, despite the fact that patients did not receive high doses of antihypertensive drugs, in 71% (n = 211) cases they arbitrarily reduced the daily dose of drugs.
Conclusion.

1. Our scientific study has shown that the incidence of AH in our elderly patients is 51.2% higher than in patients under 60 years of age.
2. AH was found to be 48% higher in women than in men.
3. It is known that female patients are aware of the increase in blood pressure, which is 45% higher than men 46.7% in elderly patients.
4. According to scientific studies, patients with AH have received antihypertensive drugs specified in the recommendations of the International Cardiology Society for the diagnosis, prevention and treatment of AH, but the daily dose is not enough.

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