International Journal of
Health Systems and Medical Science

ISSN: 2833-7433
Volume 1 | No 6 | Dec-2022

Features of Physical Growth of Patients with Arterial Hypertension

Soliev AU [1]

[1] Bukhara State Medical Institute

Abstract: Body weight, height, body mass index, hip circumference and abdominal circumference were measured in 1542 patients aged 45-74 years with arterial hypertension of the 1st and 2nd degree.

Keywords: arterial hypertension, body weight, height, body mass index, hip circumference and abdominal circumference.

Purpose of the study: To determine the gender characteristics of physical development in patients with arterial hypertension of 1 and 2 degrees.

Materials and research methods.

Body weight, height, body mass index, hip circumference and abdominal circumference were measured in 1542 patients aged 45-74 years with arterial hypertension of the 1st and 2nd degree.

Results and its discussion.

Based on the data obtained from anthropometric measurements, average indicators of physical growth were established. At the same time, the average height of women with hypertension is 165.3 cm, weight -76.2 kg. And also, the waist circumference is on average 99.6 cm, the hip circumference is 102.5 cm.

In men with hypertension, the average height was 165.9 cm, weight was 78.5 kg. At the same time, the waist circumference in men is on average 95.63 cm, the hip circumference is 97.9 cm.

It was interesting to know about BMI depending on the degree of hypertension. The distribution of patients by BMI depending on the degree of hypertension showed the following:

- in men aged 61-65 years with 1-degree AH and BMI=30.2, 1-degree obesity was diagnosed ;
- 1-degree obesity was found in men with 2-degree AH at the age of 56-60 and 61-65 years according to BMI=30.1 and 30.2, respectively.
- all women with 1-degree AH were found to be overweight (or pre -obese) according to BMI = 25-29.
- in women with 2-degree AH, already starting from the age of 50, 1-degree obesity was established: at the age of 50-55 and 71-75 years, BMI = 30.4, at the age of 66-70 years, BMI = 30.1 (Table 1).

Table №1. BMI by gender

Age of patients	1-group		2nd group	
	men	women	men	women
45-50	27.2	27.4	27.2	30.4
51-55	2 8.1	28.2	30.1 _	26.8
56-60	30.2 _	27.6	30.2 _	28.1
61-65	28.1	28.7	27.9	30.1

66-70	27.9	25.4	28.4	30.4 _
71-74	27.1	25.2	28.1	28.9

The study of BMI in the gender aspect in 1-degree AH makes it possible to establish its age-related features (Fig. 1).

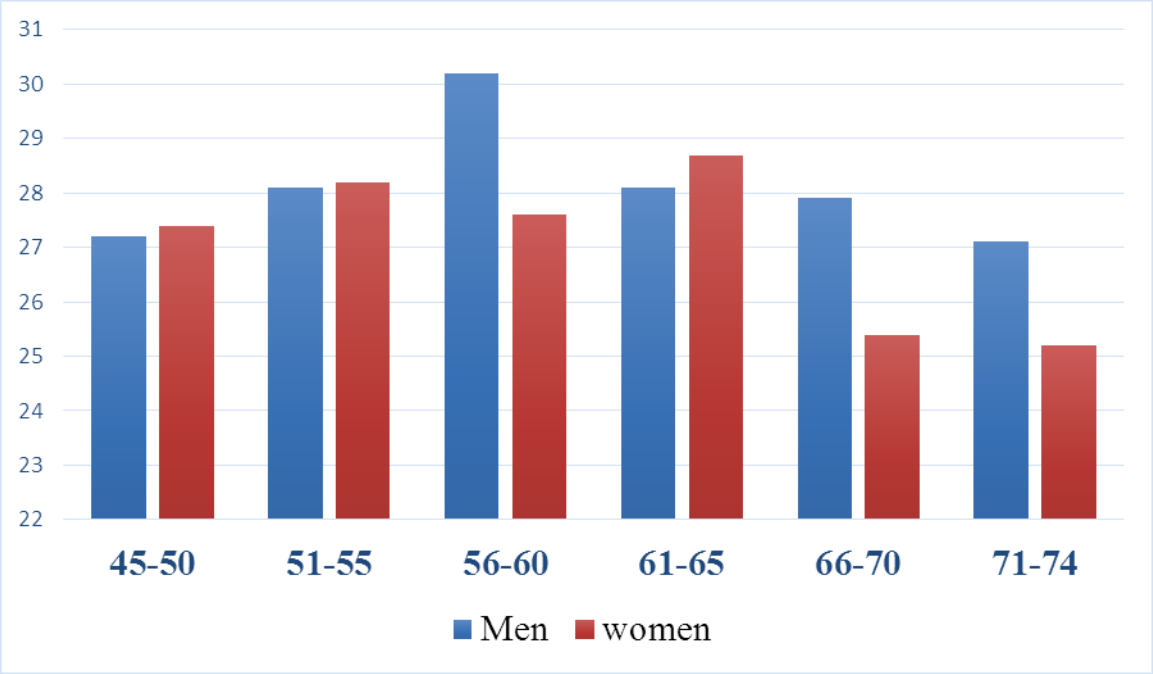

Figure 1. Age and sex characteristics of BMI in 1-grade AH

From figure No2. clearly increased BMI in men aged 56-60 years and older than 66 years. This is characterized by an increase in BMI in women with 1-degree AH at the age of 61-65 years.

An interesting fact is the dependence of BMI on age, taking into account gender. Received results indicating high BMI in women aged 45-50 , 61-65 and older. In the figure No. 2 clearly displays the age and sex characteristics of BMI in the study population.

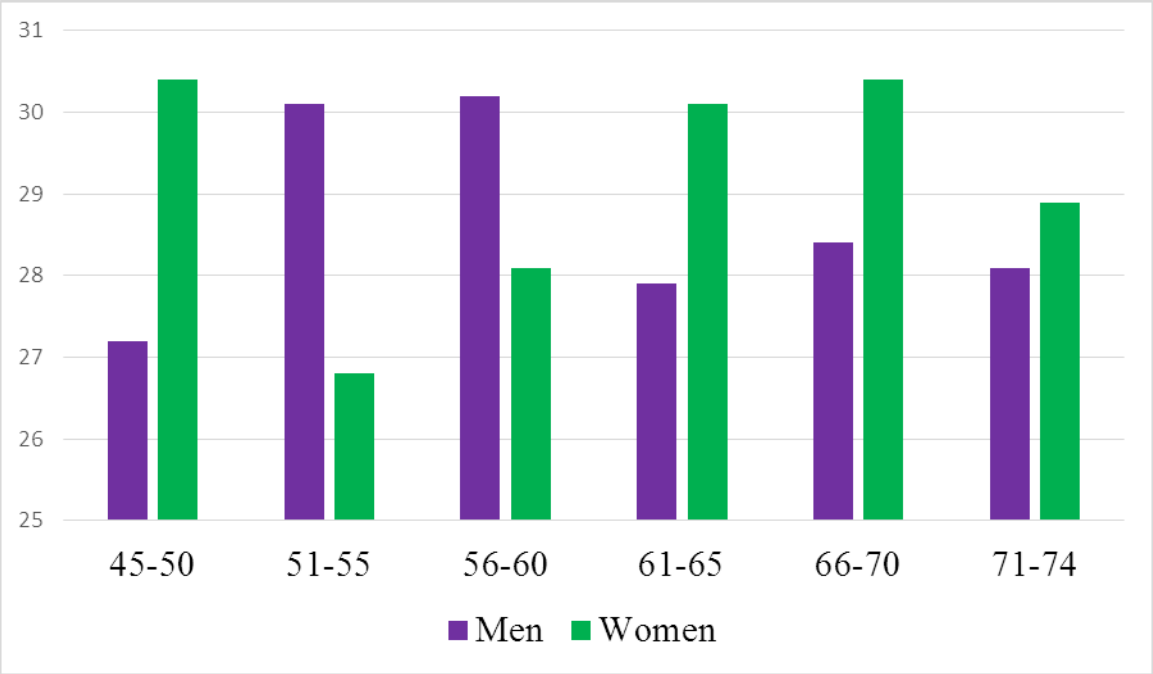

Figure 2. Age-sex characteristics of BMI in 2-degree AH

At the same time, an increase in BMI was found in men with 2-degree AH at the age of 51-60 years.

Thus, the characteristic course of hypertension against the background of overweight and obesity was established. Gender analysis showed the onset of the metabolic syndrome in 1-degree AH in women aged 50-55 years, and in men aged 56-60 years.

At the same time, the established high waist circumference in women (more than 90 cm) indicates the likelihood of accumulation of visceral fat. All the established proves the need to study the lipid spectrum of blood in AH.

The obtained BMI data show a relationship with the prescription and severity of AH: in AH of the 2nd degree, BMI is increased from 51 to 60 years of age in men. And women's BMI is increased from the age of 50. And to mean the severity of hypertension, regardless of age, is directly proportional to the degree of BMI.

Conclusion. Therefore, to study the gender characteristics of the mechanism of development of hypertension, it is necessary to comprehensively study the hormonal status, the state of metabolism of carbohydrates, lipids, nitrogen breakdown products and electrolytes in the blood.

Used literature.

1. Dontsov AV /Gender differences in hormonal profile in patients with coronary heart disease with metabolic syndrome. // Bulletin of the Russian State Medical University. 2013; 4:10–12.
2. Belenkov Yu.N. _ Gender differences in the prevalence and effectiveness of arterial hypertension treatment in the European part of the Russian Federation: results of the Epoch-2007 study. Problems of Women's Health 2011; 4(6):5–11 Soliev AU Fibroblast growth factor and hypertension. // F an, ta'lim, madaniyat va innovatsiya, Tashkent, - 2022, J ild : 01 No. 04, - 11-16 b.
3. Soliev AU Insulin-like growth factor and hypertension. // Modern journal of social siences and humanities, - Portugal, - 2022, Volume-5, - P.708-714.
4. Soliev AU, Rajabova GX, Djumaev K.Sh. Risk factors for arterial hypertension in elderly patients. / /Asian journal of multidimensional research, - India , - 2019, Volume-8, Issue-11. P.75-80.
5. Soliev AU, Navruzova Sh.I. Biochemical spectrum of blood in men suffering from arterial hypertension. // Folk medicine and modern medicine, new approaches and current research scientific practical online conference, - Tashkent, - 2022, 17-18 p.
6. S oliev AU, Navruzova Sh.I. Growth and damage factors in women with arterial hypertension. // ISOC international scientific online conference, - Germany, - 2022, - Volume-11, №1, - P.308-310.
7. Soliev AU, Navruzova Sh.I. Growth factors and damage in arterial hypertension in men. // ISOC international scientific online conference, - Germany, -2022, Volume-11, №1, - P.305-307.