## ОПТИМИЗИРОВАННЫЕ МЕТОДЫ ЛЕЧЕНИЯ ГИРУДОТЕРАПИЕЙ ПРИ ГИПЕРТОНИЧЕСКИХ КРИЗАХ

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Аннотация: В статье обобщены сведения об историческом опыте применения медицинских пиявок и разделены их на группы в зависимости от механизма воздействия на заболевания, а также рассмотрены исторические и эмпирические основы применения гирудотерапии в клинической практике. Специфика гирудотерапии изучалась в разных странах мира (США, Европа, Россия). В настоящее время недостаточно изучено терапевтическое действие гирудотерапии в клинической практике, например, состав слюны медицинской пиявки, а также местное и системное рефлекторное воздействие на организм.

Ключевые слова: гирудотерапия, гипертония, цереброваскулярные заболевания, артериальная гипертензия.

# GIRUDOTERAPIYANING GIPERTONIK KRIZLAR UCHUN **OPTIMALLASHTIRILGAN DAVO USULLARI**

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Farg'ona jamoat salomatligi tibbiyot instituti.

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Annotatsiya: Maqolada tibbiy zuluklarning tarixiy tajribasi toʻgʻrisidagi ma'lumotlar umumlashtirilgan va kasalliklarga ta'sir mehanizmiga qarab guruhlarga ajratilgan, klinik amaliyotda girudoterapiyaning tarixiy va empirik asoslari koʻrib chiqilgan. Butun dunyo boʻylab turli mamlakatlarda (AQSh, Yevropa, Rossiya) girudoterapiyaning oʻziga xos xususiyatlari oʻrganilgan. Hozirgi vaqtda klinik amaliyotda girudoterapiyaning terapevtik ta'siri misol uchun, tibbiy zulukning soʻlak tarkibi, shuningdek, organizmga javoban mahalliy va tizimli refleks ta'siri yaxshi oʻrganilmagan.

Kalit soʻzlar: girudoterapiya, gipertenziya, serebrovaskulyar kasallik, arterial gipertenziya.

## **OPTIMIZED METHODS OF HIRUDOTHERAPY FOR HYPERTENSIVE CRISES**

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Annotation: The article summarizes information on the historical experience of medical leeches divides them into groups depending on the mechanism of their effect on diseases, and examines the historical and empirical basis of hirudotherapy in clinical practice. Specific features of hirudotherapy have been studied in different countries around the world (USA, Europe, and Russia). Currently, the therapeutic effect of hirudotherapy in clinical practice, for example, the composition of the saliva of a medical leech, as well as the local and systemic reflex effect in response to the body, has not been well studied.

Keywords: hirudotherapy, hypertension, cerebrovascular disease, arterial hypertension, hypertensive crises.

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Introduction: Hirudotherapy (Latin hirudo leech, therapeia - treatment, treatment) is a method of treating a person using leeches. It has been known in medicine for thousands of years. This is one of the oldest methods of medicine. Nowadays, treatment with leeches is widely popular in modern medicine. Leeches produce special biological enzymes. These leeches are sterile. It cannot transmit various infections to the patient's body. Each leech is used only once. In addition, leeches are capable of sensing diseases. It only works with a truly infected organ or affected area. The therapeutic effect of leeches is determined by the secretion properties of the salivary glands that enter the human body. The leech bites the skin and continues to suck blood until its body is filled with blood. Leech saliva contains the following substances: hyaluronidase, hirudin, bdellins, eagling, destabilized complex (natural liposome), and others. In addition, leech saliva has an antibacterial effect. With the help of leeches, we can prevent various diseases of the cardiovascular system, various skin diseases, urological diseases, and gynecological diseases [2,3]. Today, there is a growing interest in the treatment of leeches all over the world. Abu Ali Ibn Sino (Avicenna) gave the first detailed recommendations for the use of leeches [1]. At the end of the 19th century, J. Hay craft (1884) identified hirudin, an active extract that prevents leech blood coagulation, from leech saliva [2,4,5]. Currently, hirudotherapy is used as a method of complementary medicine. Based on the methodological recommendations, the use of hirudotherapy is indicated for heart diseases, heart failure 1-2 degree, atherosclerotic cardiosclerosis, cardiosclerosis after infarction, cardialgia, dyscircular atherosclerotic encephalopathy, hypertension 1-3 degree [3,6,7,8,9].

**Materials and methods:** Implementation of emergency treatment using hirudotherapy in the optimization of hypertensive crises in the Fergana region, studying the aspects of primary and secondary prevention of hypertensive crises. We isolated the residents who complained of hypertensive crises in the Fergana region and performed emergency hirudotherapy. Determination of the duration of the effect of hirudin on the patient after hirudotherapy. Laboratory diagnostic analysis of blood composition at the Republican Center for Scientific and Practical Medicine of Oncology and Radiology.

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Results: Statistical data on the etiology of arterial hypertension show that in 90% of cases, it develops as a result of unhealthy lifestyle, and existing bad habits, and only 10% is a disease that develops for other reasons. According to statistics, about 30 percent of the world's population suffers from high blood pressure, 2/3 of them suffer from arterial hypertension, and 1/3 - borderline arterial hypertension, i.e. constant blood pressure. [4]., 102 patients aged 65±0.6 took part in the study: 38 men and 64 women. In 96.6% of cases, patients called emergency services due to increased blood pressure. Middle-aged patients (37%) rather than elderly patients (30.2%) sought emergency medical care due to increased blood pressure. Among patients who sought emergency medical care due to increased blood pressure, AH I St. appeared only in middle-aged patients; AH II Art. More than usual was observed in the middle (38.7%) and elderly (37.1%) patients and AH III level was observed in elderly patients (50.3%). There are three levels of arterial hypertension, if the systolic pressure is in the range of 140-159 mm Hg, and the diastolic pressure is in the range of 90-99 mm Hg, it is considered the I level of arterial hypertension. If the upper-pressure readings are from 160 to 179 mm Hg, the lower one is 100-109, this is the I degree of arterial hypertension. In arterial hypertension of the III degree, the upper pressure is stable at 180 and above, and the lower pressure is above 110 mm Hg. In the course of our research, we found the following. At the first stage of the study, based on Pokrovsky's book "Small Medical Encyclopedia", patients were divided into age groups and the following were determined. Among the 102 patients who applied with urgent arterial hypertension crises, it was found that 49 patients applied for the most elderly people, i.e. 55/60-75 years old. It was found that it occurs more often in women than in men in the 2nd period of adulthood (between 20-35 years old). It was found that in the period of youth (between 16-21 years old), it occurs more often in boys than in girls, and in the first period of adulthood (between 20-35 years old), it occurs more often in women than in men. (Table 1).

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| Table 1 Reversibility | of hypertensive crises in different |
|-----------------------|-------------------------------------|
|                       | age groups.                         |

| Age periods          | Age groups            | Number of patients |  |  |  |  |
|----------------------|-----------------------|--------------------|--|--|--|--|
| The period of youth  | Boys AHed 17-21       | 2                  |  |  |  |  |
|                      | 16-20 year old girls  | -                  |  |  |  |  |
| Adulthood (Period 1) | 21-35 year old man    | -                  |  |  |  |  |
|                      | 20-35 years old woman | 4                  |  |  |  |  |
| Adulthood (period 2) | 35-60 year old man    | 16                 |  |  |  |  |
|                      | 35-55 years old woman | 25                 |  |  |  |  |
| Old Age (Period 1)   | 55/60-75 years old    | 49                 |  |  |  |  |
| Old Age (period 2)   | 75-90 years old       | 6                  |  |  |  |  |
| Those who live long  | 90 years and older    | -                  |  |  |  |  |

According to the Age classification, 48% of patients with complaints of AH are mostly found in the 55/60-75 Age group. In the second place, 24% of 35-55-year-old women, 16% of 35-60-year-old men, 6% of 75-90-year-olds, and 4% of 17-21-year-olds have the disease. (Diagram-1)

Diagram 1Classification of patients by age in percentage.

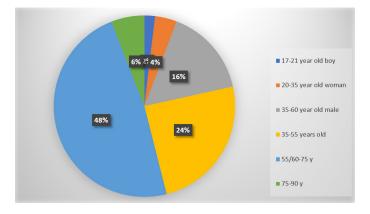


 Table -2 Degree of hypertensive crises in different age groups.

| № | Disease level             | Youth period | Adulthood (1st<br>period) | Adulthood (2nd<br>period) | Old Age (Period 1) | Old Age (period 2) | Long lives | Percentage |  |  |  |
|---|---------------------------|--------------|---------------------------|---------------------------|--------------------|--------------------|------------|------------|--|--|--|
| 1 | AH I<br>(90-99140-159)    | 2            | 3                         | 28<br>(12+16)             | 25                 | 4                  | -          | 60.7%      |  |  |  |
| 2 | AH II<br>(100-109160-179) | -            | 1                         | 11(3+8)                   | 17                 | 1                  | _          | 29.4%      |  |  |  |
| 3 | AH III (110180)           | -            | -                         | 2(1+1)                    | 7                  | 1                  | -          | 9.8%       |  |  |  |

**Discussion:** In the second stage of the scientific research, we created a table on the AH levels and age levels of the patients and determined the following. I level of arterial hypertension was found more often <u>Klinik va profilaktik tibbiyot jurnali 2024. № 1</u>

than the rest, totaling 60.7%. II degree of arterial hypertension was found in 29.4% of patients, and III degree of arterial hypertension was found in 9.8% of patients. According to the age periods, it was found that in the 2nd period of adulthood, 45% of all patients of AH made up 45% of all patients of this age, and this disease occurs even in youth. It has been proven that the III degree of AH is the most common among age groups in old age, making up 19% of the total (table 2).

**Conclusion:** Prompt diagnosis and initiation of therapy are key to minimizing end-organ damage in patients with emergent hypertension. Drug selection based on individual patient characteristics can optimize the management of hypertensive patients and potentially optimize outcomes. In conclusion, we should say that arterial hypertension is younger, i.e., it occurs both in youth and in the 2nd period of adulthood, and it is found that it is increasing compared to previous periods. It was found that the II degree of AH occurs more often in the 2nd period of adulthood and old age. Also, it was found that the III degree of AH is also rejuvenating, even in the 1st period of adulthood.

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