

ARTERIAL HYPERTENSION IN THE YOUNG AGE GROUP, LONGITUDINAL RESEARCH FOR THE PERIOD JANUARY 2023 - JANUARY 2024

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Abstract

Arterial hypertension (HAT) in young people in recent years is a frequent phenomenon and with its duration, harmful consequences may appear for their health. Uncontrolled and unbalanced HTA can cause damage to various organs of the body, including the heart, blood vessels, brain, kidneys, and eyes. Hypertension is a risk factor for the development of cardiovascular diseases (acute myocardial infarction, stroke, heart failure, etc). A large number of studies on HTA in young people have verified that it appears as a consequence of physical inactivity, adiposity, malnutrition, stress, smoking, etc. HTA can cause damage to blood vessels, including their narrowing (atherosclerosis), damage to the coronary arteries, kidney, causing kidney failure, damage to the retina (hypertensive retinopathy), etc. Therefore, early detection HTA at a young age and in the early stages and medical treatment should be the main focus of health professionals in order to prevent the aforementioned complications.

Aim: To prevent the risks and diseases that have a predisposition to appear in young people from HTA and to make the youth population aware of the harmful effects that can appear from HTA.

Materials and Methods: as working material, the diaries of the 18-30-year-old age group in the department of internal diseases near the Clinical Hospital of Tetovo in the period January-2023-January-2024 were used.

Results: According to statistics, men were 3 times more prone to hypertension compared to women. From total age to 80% of young people (women + men) HTA manifestations were as a result of physical inactivity, stress, malnutrition, anxiety, excessive consumption of salt, adiposity, lifestyle, while close to 20% of young people express during the history taking that also influence social networks, mistrust in the circle they live in and bullying.

Conclusion: in conclusion, we can propose that education about the management of HTA in young people through awareness and drug treatment can apparently affect the prevention and prevention of this frequent phenomenon and the aforementioned complications.

Keywords: arterial hypertension, arteriosclerosis, cardiovascular diseases.

1. Introduction

The primary goal is to prevent the onset or progression of diseases related to high blood pressure in young individuals. This involves identifying risk factors for hypertension early on and implementing strategies to mitigate these risks. Prevention measures may include lifestyle interventions such as promoting healthy diet and exercise habits, stress management techniques, and avoiding harmful substances like tobacco and excessive alcohol. By focusing on young people, the project recognizes the importance of early detection and prevention. Addressing hypertension at a younger age can help prevent more serious health issues later in life, such as heart disease, stroke, and kidney problems.

Overall, the aim of this scientific work is to contribute to the development of effective strategies for preventing and managing hypertension in young people, ultimately improving their long-term health outcomes and reducing the overall burden of cardiovascular disease. By

focusing on prevention and early intervention, the project has the potential to make a significant impact on public health.

2. Materials and methods

Diaries were collected from eligible participants who consented to participate in the study. The diaries likely contained self-reported information on daily activities, including diet, exercise, stress levels, medication usage, and any symptoms or health concerns related to hypertension. Data collection may have been conducted periodically throughout the study period, allowing for the tracking of changes over time. Participants were likely recruited from the outpatient department or other relevant clinics within the hospital.

Inclusion criteria may have included individuals aged 18-30 years old who were willing to provide written consent for participation. Exclusion criteria may have included individuals with pre-existing medical conditions that could confound the results or those unwilling or unable to maintain a diary. By utilizing diaries as a primary data source, this study likely aimed to capture detailed insights into the daily lives and health behaviors of young adults in relation to hypertension, providing valuable information for understanding risk factors and developing targeted prevention strategies.

3. Results

The results indicate a significant gender disparity in hypertension prevalence, with men being three times more likely to develop hypertension compared to women. Among young people, both men and women, approximately 80% of hypertension cases were attributed to factors such as physical inactivity, stress, poor diet, anxiety, excessive salt intake, and obesity. However, about 20% of young individuals reported additional social factors contributing to hypertension, including issues with social networks, distrust within their social circles, and experiences of bullying. These findings highlight the multifactorial nature of hypertension and the importance of addressing both physical and social determinants of health in its prevention and management.

Arterial hypertension (HTA) in young people has indeed become increasingly prevalent in recent years, posing significant risks to their health if left uncontrolled. The consequences of prolonged and unmanaged HTA can affect various organs in the body, including the heart, blood vessels, brain, kidneys, and eyes. Hypertension serves as a significant risk factor for the development of serious cardiovascular diseases such as acute myocardial infarction, stroke, and heart failure.

Numerous studies have highlighted the multifactorial nature of hypertension in young individuals, with factors such as physical inactivity, obesity, poor diet, stress, and smoking contributing to its onset and progression. These lifestyle factors can lead to damage to the blood vessels, including atherosclerosis (narrowing of the arteries), coronary artery damage, kidney damage leading to renal failure, and hypertensive retinopathy affecting the eyes.

Early detection of hypertension in young individuals is crucial, as it allows for timely medical intervention to prevent or mitigate the potential complications associated with the condition. Health professionals should prioritize screening for hypertension during routine health assessments, especially in young adults who may not exhibit obvious symptoms. Early identification and appropriate medical management can help prevent the development of serious cardiovascular complications later in life.

Statistics indicate that men are more prone to hypertension compared to women, with various factors such as genetics, hormonal differences, and lifestyle habits contributing to this disparity. Lifestyle factors such as physical inactivity, stress, poor nutrition, excessive salt

consumption, and obesity play significant roles in the manifestation of hypertension in both men and women.

Positive aspects of addressing arterial hypertension (HTA) in young people:

- Early detection and intervention: Identifying hypertension at a young age allows for early intervention and management, which can prevent the development of serious health complications later in life.
- Prevention of cardiovascular diseases: By managing hypertension effectively, the risk of developing cardiovascular diseases such as heart attacks, strokes, and heart failure can be significantly reduced.
- Empowering young people: Educating young individuals about the importance of healthy lifestyle choices and regular monitoring of blood pressure empowers them to take control of their own health and well-being.

Negative aspects of untreated arterial hypertension in young people:

- Organ damage: Uncontrolled and unbalanced hypertension can lead to damage in various organs of the body, including the heart, blood vessels, brain, kidneys, and eyes, potentially causing long-term health issues and reducing quality of life.
- Increased risk of cardiovascular events: Hypertension is a significant risk factor for acute myocardial infarction (heart attack), stroke, and other cardiovascular events. Failure to address hypertension in young people can therefore increase their risk of experiencing these serious health crises.
- Compromised quality of life: Hypertension-related complications can have a profound impact on a young person's quality of life, affecting their ability to engage in daily activities, pursue hobbies, and maintain social relationships.

In summary, while early detection and management of hypertension in young people can lead to positive health outcomes and prevent serious complications, failure to address this condition can result in significant negative consequences for both physical health and overall well-being. Therefore, prioritizing early detection, intervention, and ongoing medical treatment is crucial in mitigating the harmful effects of arterial hypertension in young individuals.

Reason why HTA at the young people:

Certainly, hypertension (HTA) in young people can be influenced by a variety of factors, both physiological and lifestyle-related. Here are some additional indications from the medical perspective as to why young people might develop hypertension:

Genetic predisposition: Family history plays a significant role in the development of hypertension. Young individuals with a family history of hypertension are more likely to develop the condition themselves due to genetic factors inherited from their parents.

Obesity: Excess body weight, especially abdominal obesity, is a major risk factor for hypertension. Young people who are overweight or obese are at a higher risk of developing hypertension due to the increased strain on their cardiovascular system.

Poor diet: Diets high in sodium, saturated fats, and processed foods, and low in fruits, vegetables, and whole grains can contribute to hypertension. Young people who consume a diet high in unhealthy foods are more likely to develop hypertension.

Physical inactivity: Lack of regular physical activity is strongly associated with the development of hypertension. Young people who lead sedentary lifestyles and engage in minimal physical activity are at an increased risk of developing hypertension.

Stress: Chronic stress can lead to the release of stress hormones such as cortisol, which can increase blood pressure. Young people facing high levels of stress from academic, social, or family pressures may be more prone to developing hypertension.

Smoking and substance abuse: Tobacco smoking and the use of substances such as alcohol and illicit drugs can contribute to hypertension in young people. These substances can have direct effects on blood pressure regulation and cardiovascular health.

Sleep disorders: Conditions such as sleep apnea, characterized by interrupted breathing during sleep, are associated with hypertension. Young people with untreated sleep disorders may be at an increased risk of developing hypertension.

Chronic medical conditions: Certain chronic medical conditions, such as kidney disease, thyroid disorders, and hormonal imbalances, can contribute to hypertension in young people. Treating the underlying medical condition is essential in managing hypertension in these cases.

Medication side effects: Certain medications, including some contraceptive pills, nonsteroidal anti-inflammatory drugs (NSAIDs), and decongestants, can raise blood pressure. Young people taking these medications may develop hypertension as a side effect.

Social determinants: Socioeconomic factors such as poverty, lack of access to healthcare, and environmental stressors can also contribute to hypertension in young people. Addressing these social determinants is crucial in preventing and managing hypertension in vulnerable populations.

4. Conclusion

In conclusion, arterial hypertension in young individuals poses a significant health risk, with potential harmful consequences if left untreated. The project underscores the importance of early detection and intervention to prevent the onset or progression of diseases associated with high blood pressure. Through longitudinal research conducted over the period January 2023 to January 2024, insights were gained into the prevalence and factors contributing to hypertension among young adults.

The results highlight a significant gender disparity in hypertension prevalence, with men being three times more prone to the condition compared to women. Lifestyle factors such as physical inactivity, stress, poor diet, and obesity were identified as major contributors to hypertension in both men and women. Additionally, social factors such as issues with social networks, distrust within social circles, and experiences of bullying were found to influence hypertension in a subset of young individuals.

The findings underscore the multifactorial nature of hypertension and the importance of addressing both physical and social determinants of health in its prevention and management. Education about hypertension management and lifestyle modifications are key components of preventive strategies. By promoting awareness and early medical treatment, health professionals can effectively mitigate the risks and complications associated with hypertension in young people.

In summary, the project emphasizes the need for a holistic approach to addressing arterial hypertension in young individuals, with a focus on early detection, lifestyle modifications, and medical intervention. By implementing effective prevention strategies, the project aims to reduce the overall burden of hypertension-related complications and improve the long-term health outcomes of young adults.

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