Awareness of lifestyle induced hypertension among adolescents

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ABSTRACT

Introduction: Hypertension or high blood pressure is a chronic medical condition in which the blood pressure in the arteries is elevated. The normal blood pressure when a person is said to be at rest is within the range of 100–140 mmHg systolic and 60–90 mmHg diastolic. High blood pressure is said to be present if it is above 140/90 mmHg. High blood pressure is classified as primary high blood pressure and secondary high blood pressure. About 95% of hypertensive cases are primary and are defined as high blood pressure due to a different lifestyle and genetic factors. Lifestyle factors that increase the risk include excess salt in the diet, excess body weight, smoking, and alcohol use. Materials and Methods: A questionnaire containing around 15 questions was prepared and 100 adolescent students whose age ranging from 12 to 18 years were asked to take up the survey, and the corresponding results were concluded. Results: The results were found to be that a large number of students did not check their blood pressure regularly and 54% of the students got stressed quite often, and 44% of the students were less bothered about their health and skipped their breakfast. Although 60% of the students were already aware that junk foods can elevate blood pressure they still continued to eat it, 60% of the students were not aware that eating fruits can reduce their chances of blood pressure, 58% of the students were aware that physical inactivity caused hypertension, and 65% of the students were not aware that junk foods can cause stroke and ischemic disease. A large number of students were not aware that hypertension shows no symptoms and 61% of the students preferred low salt intake as a precaution measure to hypertension while the others preferred doing exercise and eating vegetables and fruits. Conclusion: Awareness of lifestyle induced disorders among the adolescents is necessary as it can be beneficial to them as well as they can educate the future generation.

KEY WORDS: Blood pressure, Exercise, Ischemic heart disease, Junk foods, Stroke

INTRODUCTION

Hypertension or high blood pressure is a chronic medical condition in which the blood pressure in the arteries is elevated. The normal blood pressure when a person is said to be at rest is within the range of 100–140 mmHg systolic and 60–90 mmHg diastolic. High blood pressure is said to be present if it is above 140/90 mmHg. High blood pressure is classified as primary high blood pressure and secondary high blood pressure. About 95% of hypertensive cases are primary and are defined as high blood pressure due to a different lifestyle and genetic factors. Lifestyle factors that increase the risk include excess salt in the diet, excess body weight, smoking, and alcohol use.

Hypertension appears as the highest attributable risk to deaths from cardiovascular disease,¹⁰ and several epidemiological studies provide convincing evidence that the risk of cardiovascular disease related to blood pressure is graded and continuous.¹⁴ This risk is seen to be evident even in childhood; with increased levels of blood pressure predicting hypertension in adulthood¹⁵ and adverse effects of elevated blood pressure in childhood on vascular structure and function, specifically left ventricular hypertrophy, are already apparent in youth.⁶⁻⁹ The reduction of blood pressure reduces this risk in people with and without hypertension and is a desired goal in children and adults.¹⁰,¹⁵

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Puberty, overweight, and some other metabolic disorders often pave the way to the fact that primary hypertension (PHT) is seen as a most common form of hypertension among adolescents.\(^\text{11}\) PHT is often recognized as a condition without any clinical symptoms.\(^\text{12}\) Similarly to adults, PHT among children also corresponds to obesity and a family history of this disease.\(^\text{13-15}\) Obesity, hypercholesterolemia, hypertension, and various other habits contributing to the risk of cardiovascular diseases which have their roots in childhood tend to continue into adulthood. Hence, any preventive actions against these diseases in adulthood can be far too late. This is the reason why, from an early age, programs promoting physical activity, healthy eating habits, and non-smoking promoting acts should be undertaken to prevent these disease.\(^\text{16-18}\) This is especially necessary when considering the fact that more than 40% of children have complications connected with organ damage at the moment of PHT diagnosis.\(^\text{19,20}\) Taking all these points into consideration, we decided to carry out this study to analyze the knowledge of hypertension among adolescents in the developmental age population.

**MATERIALS AND METHODS**

The study was conducted among adolescent school going students aging 12–18 years to create an awareness on hypertension. Information was collected through survey questionnaire that was filled in survey planet.

On the whole, 100 participants took part in the survey. The above-mentioned questions have been asked to the participant through the link. Among these questions, seven questions come under yes or no type. Other questions are given with appropriate options. The results of the survey were statistically analyzed.

**RESULTS**

The results were found to be that a large number of students did not check their blood pressure regularly and [Figure 1] 54% of the students got stressed quite often, and 44% of the students were less bothered about their health and skipped their breakfast. Although 60% of the students were already aware that junk foods can elevate blood pressure they still continued to eat it, 60% of the students were not aware that eating fruits can reduce their chances of blood pressure, [Figure 2] 58% of the students were aware that physical inactivity caused hypertension, and 65% of the students were not aware that junk foods can cause stroke and ischemic disease [Figure 3]. A large number of students were not aware that hypertension shows no symptoms and [Figure 4] 61% of the students preferred low salt intake as a precaution measure to hypertension while the others preferred doing exercise and eating vegetables and fruits [Figure 5]. 60% of the respondents came to know about hypertension through education by doctors, and the came to know about the condition through teachers and parents [Figure 6]. This study shows that a large number of respondents were unaware that lifestyle induced habits can cause hypertension.

**DISCUSSION**

The present study assessed the knowledge of risk factors of hypertension among adolescent students.
The areas of emphasis in this study are obesity, high salt intake, and physical inactivity being contributors to hypertension. Risk factors for hypertension are not well studied in the category of young adolescents, and public awareness of hypertension in countries undergoing epidemiological transition is negligible. However, the results of the present study indicate that more than 60% of the participants were aware that stress, high cholesterol, and obesity were the risk factors for hypertension. It is interesting to note that a large number of students came to know about hypertension through education by doctors. More than 60% were aware of high salt intake and a high-calorie diet being risk factors.

A recent study on knowledge and perceptions about hypertension among neo- and settled-migrants in Delhi, India, demonstrated that knowledge about hypertension was only moderate and comprehensive knowledge was lacking. This is in relation with results obtained from the present study, and it indicates the need for more awareness to the young growing adolescents.

**CONCLUSION**

Hypertension is now regarded as an important public health challenge in both economically developing and developed countries. A large number of individuals with hypertension are not aware of their condition and among those with diagnosed hypertension, treatment is frequently not adequate. Measures are required to be carried out at a population level to prevent the development of hypertension and to improve awareness, treatment, and control of hypertension in the community. Awareness of lifestyle induced disorders among the adolescents is necessary as it can be beneficial to them as well as they can educate the future generation.

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