The Effect of Blood Pressure on Snoring

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ARTICLE INFO

Received: February 04, 2019
Published: February 11, 2019


Keywords: Snoring; Blood Pressure

ABSTRACT

The purpose of the present study was to know the effect blood pressure on the Snoring if any present. We were hopeful that there would be some relation between the blood pressure and Snoring. Two hundred students participated in this research. These two hundred students were belonging to Bahauddine Zakariya University Multan Pakistan. The unpleasant sound produced by snoring at night during sleep. The snoring is an intolerable for bed companion. We want to know whether there has any kind effect of blood pressure on snoring. The blood pressure is variable factor but normal value is also known. The blood pressure of person vary person to person according to their age. The people of different age have different blood pressure due change in metabolic activity with person's age. So, we can suppose that blood pressure of different age group has different effect. In order to know relationship between blood pressure and snoring, we prepared the questionnaire about project. For research purpose we have asked the question to students. They have given the answer according to their blood pressure which was measured by sphygmomanometer. We then got final results by comparing the different blood pressure with snorer person.

Introduction

When blood flow inside the blood vessels it exerts the force, which dilate the blood vessels is known as blood pressure. There is two type of blood pressure known as Systolic and diastolic [1-4]. When blood exert the force on the vessel during heart contraction or beating create blood pressure which known as systolic blood pressure. The 120mmHg is the normal and optimum systolic blood pressure. While diastolic pressure is minimal arterial blood pressure which is produced during the relaxation of heart’s ventricle and filling of heart with blood takes place through this process. The 80mmHg is normal diastolic blood pressure in normal healthy person. Blood is connective tissue which transport the food, nutrients and oxygen to all parts of body. For this purpose, normal and suitable blood pressure also required. But there are many medical problems are associated with abnormal blood pressure [5]. High blood pressure and low blood pressure there are two medical problem which spread many other medical complications. The five blood pressure ranges are given by American Heart Association. The first is a normal range. The blood pressure less than 120/80 mmHg is normal range it is the sign of good health of heart. Elevated is the second range in which blood pressure consistently remain above the 120/80 mmHg. Systolic range is 120 to 129 mmHg and diastolic range is less than 80mmHg. If proper precaution and action not taken then person may go to high blood pressure disease. Hypertension stage 1 is the 3rd range [6]. In this range systolic blood pressure may remain above the 130 to 139 mmHg and diastolic blood pressure range is 80 to 89. At this stage person’s life style should be change and doctor may prescribe medicine according to risk of Heart attack or stroke. Hypertension stage 2 is the 4th range of blood pressure. 140mmHg or more is systolic pressure and 90mmHg or more is diastolic pressure. The change in lifestyle as well as medicine are must require during the high blood pressure. Hypertensive crisis is the last and fifth range in which systolic pressure is more than 180 mmHg and diastolic pressure is more than 120mmHg. It is an emergency condition in this situation call the doctor.

Due to high blood pressure heart attack, brain stroke, kidney disease, limb disease. The low blood pressure symptoms dizziness,
fainting, blurred vision, nausea. Snoring is a sound produced by the vibration due to turbulent air movement. When we speak vocal cords vibrate to produced voice like that snoring is a voice which is produced at the night during sleep. Snoring is an unpleasant sound for bed partner [7]. It is not very serious in general. Snoring is general condition that can affect anyone but especially it affects the man who have high weight. It has tendency to in crease with increase of age. Many people snore during the allergy seasons. Abnormal structure like deviated septum or nasal fluids cause obstruction that’s why snoring produced. A long soft palate may narrow the opening from the nose to the throat. When these structures vibrate and move against one another then airway becomes obstructed which cause the snoring.

Material and Method

Stethoscope and sphygmomanometers, there three type of sphygmomanometer used digital mercury, aneroid. Here we use the mercury sphygmomanometer it is made up of inflatable cuff which wrapped around the arm to measure the blood pressure. The device which measure the blood pressure recognized the cuff’s pressure. There is a bulb which move the air into cuff which inflate the cuff. The stethoscope is used to detect the sound of flow of blood in arteries [8]. When heart as whole contracts produced the pressure, which known as systolic blood pressure and decrease blood pressure produced when heart relax and prepare for next heart beat is known as diastolic pressure. We wrapped the cuff around the person’s arm and then cuff is inflated by using bulb which create the air pressure in cuff and cuff was inflated. The cuff is inflated at maximum range for getting expected systolic pressure. then valve of bulb opened, pressure of cuff release or decrease slowly for getting appropriate result. Then took stethoscope placed on vessels of arm When systolic pressure became equal to cuff’s pressure then it created the blood flow sound which is produced due blood flow turbulence. This sound we heard through the help of stethoscope then we recorded cuff’s pressure. This sound can be heard till cuff’s pressure fall below the arteries pressure or diastolic, when sound stop it indicated the diastolic pressure [9-10], we write down the diastolic pressure on the note book. In this way we measured blood pressure of 200 students of Bahauddine Zakariya university Multan, Pakistan, for research purpose. The all students have varied blood pressure according to their health condition. The purpose for measuring blood pressure was to correlate snoring with blood pressure.

Project Designed

A questionnaire was prepared to know what the effect of blood pressure on the Snoring is. In this project two hundred students participated.

Statistical Analysis

Statistical analysis done by MS EXCEL. The SAS (statistical analysis software) used. In this project p value less than .05 was considered as a significant value.

Result and Discussion

We put our gathered data in the MS excel. These data value was blood pressure of different students. Two hundred students participated in this project. These students have different blood pressure. There were thirty students who do snoring during sleep. It means that 30 student’s systolic and diastolic blood pressure was different but they said that they have snore during sleep. The other 170 students also have different blood pressure but they did not feel snoring. The .005 p value is known as significant standard value. P > .05, it means that there is no effect of blood pressure on the snoring. We know that standard value of p is .05 but our results values are more than standard value.

The students whose average systolic blood pressure (Table 1) have 121.0465 mmHg they were snorer but they were 25 out of 200 study. But average systolic blood pressure 123.0525 mmHg have no snoring issue. They were 175 students who have no snoring problem. In Table 2 it has shown that the average diastolic blood pressure 74.75 have snoring issues but matter is that they were small in number. They were 25 students. But in contrary, the average diastolic blood pressure has 75.75 mmHg were no snorer: They were in massive quantity. They were 175 students. Some research reveals that snoring have some relation with high blood pressure because snoring can cause high blood pressure but high blood pressure has no relation with snoring it means that blood pressure doesn’t cause snoring.

Table 1: The mean value of systolic blood pressure + standard deviation value.

<table>
<thead>
<tr>
<th>Snoring</th>
<th>No Snoring</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>121.0465 ± 16.16302</td>
<td>123.0525 ± 14.19243</td>
<td>0.62707</td>
</tr>
</tbody>
</table>

Table 2: The mean value of diastolic blood pressure + standard deviation.

<table>
<thead>
<tr>
<th>Snoring</th>
<th>No Snoring</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>74.79795 ± 8.948832</td>
<td>75.75922 ± 8.862749</td>
<td>0.4865</td>
</tr>
</tbody>
</table>

Conclusion

It was concluded from the above research that the maximum average systolic and diastolic pressure have no relation with snoring but minimum average systolic and diastolic blood pressure shows relationship with snoring. Finally, it was concluded from present study that there is no effect of blood pressure on snoring. Some research is present here that show snoring can increase blood pressure but blood pressure has no significant effect on the snoring.

References


ISSN: 2574-1241
DOI: 10.26717.BJSTR.2019.14.002537


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