FREQUENCY OF HYPERTENSION AMONG URBAN BUS DRIVERS

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ABSTRACT

Objectives:

To determine the frequency of hypertension among urban bus drivers

To study the association of risk factors with hypertension among urban bus drivers

Methods:

It was a descriptive cross sectional study. It was conducted at different bus halts of Karachi in the area of North Nazimabad, Safora Goth, Buffer Zone during the period of June 2011 to August 2011. A sample of 169 bus drivers were selected randomly and the data was collected by filling a questionnaire after taking a verbal consent.

Results:

From our study, we found out that out of 169 drivers, 26(15.4%) were hypertensive.

Key words:

Bus drivers, Hypertension, Karachi

INTRODUCTION:

Hypertension is defined as a reading of 140/90 mmHg on three consecutive measurements at least 6 hours apart [1]. Normal blood pressure is 120/80 mmHg. Prehypertension ranges from 120-139/80-89 mmHg. Stage 1 hypertension is between 140-159/ 90-99 mmHg. Stage II hypertension is more than 160/100 mmHg [2]. Hypertension is classified as either primary (essential) or secondary; about 90-95% of cases are termed as primary, having no etiological cause. The remaining 5-10% of cases are caused by definitive agents such as alcohol abuse, atherosclerosis, chronic kidney disease, coarction of aorta, diabetes, thyroid dysfunction, Cushing's syndrome, pheochromocytoma[3]. Isolated systolic hypertension refers to elevated systolic pressure with normal diastolic pressure and it is common in the elderly[4].Hypertension is also classified as resistant if blood pressure is not reduced in patients adhering to full doses of an appropriate 3-drug antihypertensive regimen that includes a diureti[5].According to an analysis, 26.4% of overall global population had hypertension in 2000, a number that is expected to rise to 29.2% in 2025. In the year 2000, total number of people suffering from hypertension was 972 million worldwide, while in developed countries it was 333 million and in developing countries the figure was 639 million.[6] In1999-2002, 28.6% of US population had hypertension [7] while in 2004, the prevalence was seen to be 29%; an increase of 0.4% in 2 years[8]. The prevalence rates vary markedly in different regions being as low as 3.4% in India and as high as 68.9% in Poland [9]. According to the national health survey of Pakistan conducted by the Pakistan Medical Research Council, 18% of adult Pakistanis suffer from high blood pressure. There are 12 million known hypertensive in Pakistan with higher prevalence in urban areas (21.5%) and 16.2% in rural areas and alone in Karachi, prevalence is 17%[10]. From a number of studies carried out previously in Sweden, Finland, England and Denmark show that professional bus drivers are at higher risk of developing hypertension[11]. Major risk factors for hypertension are modifiable and non modifiable. Modifiable risk factors are and smoking, dyslipidemia, diabetes mellitus, obesity/ overweight, additional salt intake. Nonmodifiable risk factors are family history, age, sex. Specific risk factors of commercial bus drivers are, need to adherent to tight schedule, deal with traffic congestion, increased responsibility for life of others, poor social background, environmental factors (air pollution, noise, temperature, erratic shifts of work hours).

Studies show that hypertension is a leading cause of high morbidity and mortality. Professional bus drivers are at more risk due to their stressful job description. This study would be helpful in high-

lighting the problem among them and can be taken as secondary preventive tool at policy making level.

MATERIAL AND METHOD

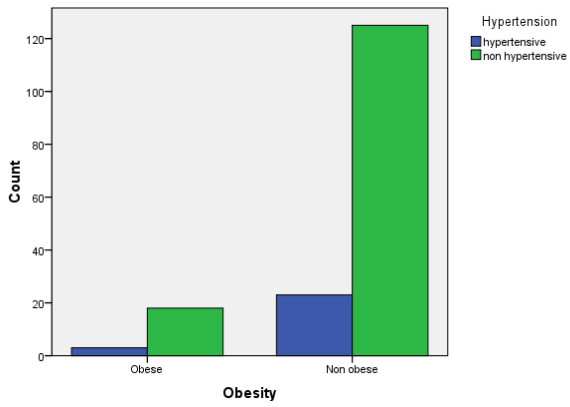
A descriptive crossectional study was conducted in North Nazimabad block M and Safora Goth from April to October 2011. Our study included 169 bus drivers. Bus drivers who do not give consent were excluded from study. All urban bus drivers of North Nazimabad Town and Safora Goth who are driving for more than 6 months are included in our study. Our sampling technique was non probability convenient. Three readings for blood pressure were noted at 10 minutes interval at resting state to assess the hypertension in bus drivers by using sphygmomanometer. A self designed questionnaire was used. Height was measured by in inches and weight was recorded in Kg. Standard BMI values taken between 19-24 as normal, 25-29 as overweight and 30 and above as obese. Anxiety and depression was assessed by using HAD scale taken from the psychiatry department of Abbasi Shaheed Hospital.

RESULT

Mean age of the drivers was 40 ±9. All of them were apparently healthy and conscious during the data collection time. Results showed that out of total 169 drivers, only 26(15.4%) were hypertensive.

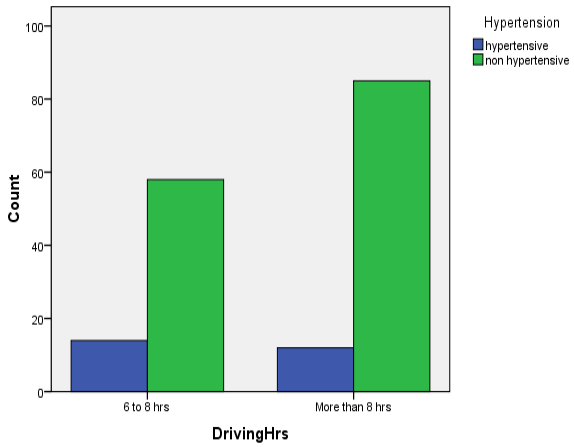
It was noted that 21(12.4%) out of 169 drivers were obese and only 3(14.2%) of them were hypertensive as shown in fig 1.

FIGURE 1:
HYPERTENSION AND OBESITY IN BUS DRIVERS



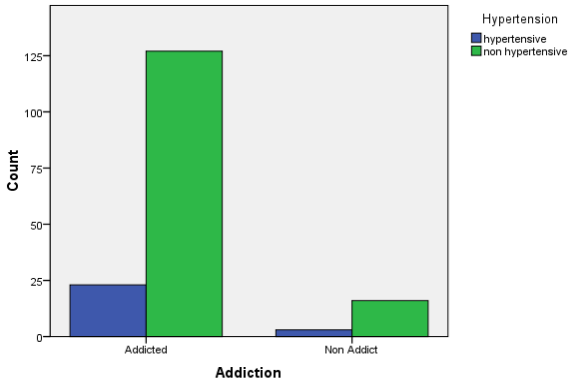
Results showed 72(42.6%) drivers were driving for 6-8 hours and 14(19.4%) were hypertensive out of them. While 97(57.4%) drove more than 8 hours and 12(12.3%) of them were hypertensive as shown in fig 2.

FIGURE 2:
HYPERTENSION AND WORKING HOURS



It was found that150 (88.8%) drivers were addicted to any one or more kind of addictions including tobacco, charas, gutka, niswar etc; and 23(15.3%) of them were hypertensive. (figure 3)

FIGURE 3
HYPERTENSION AND ADDICTION



Our study revealed that 14(8.3%) drivers were anxious or under stress and 2(14%) among anxious were hypertensive.

Moreover, 35(20.8%) drivers were depressed and 7(20%) of them were hypertensive.

Our study showed that 26(15.5%) drivers used extra salt in their meals and 5(19.2%) of excess salt users were hypertensive.

RECOMMENDATIONS

1. There should be a medical fitness test for every driver.
2. There should be regular checkups to evaluate their health.
3. All of them must have access to primary health care.
4. There working hours should be reduced.
5. Their nutrition should be assessed and planned.
6. Education should be promoted.

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