

Risk Factors of Hypertension in Martapura Public Health Center, Banjar, South Kalimantan, Indonesia

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Abstract

This study aimed to analyze the relationship between gender, heredity and nutritional status with hypertension degree in hypertensive patients at Martapura Public Health Center as the most visited health service institution by hypertension patient in Banjar District, South Kalimantan Province, Indonesia. The design used in this study was cross sectional, with a sample of 32 patients with hypertension in Martapura Public Health Center. Data were collected through interview, then analyzed using Chi square test. The results showed that the degree of hypertension related to sex and heredity.

Keywords: hypertension, gender, heredity, nutritional status

I. INTRODUCTION

Hypertension is a disease that occurs due to an increase in blood pressure (Sigarlaki, 2006). The National Heart, Lung and Blood Institute estimates that half of people with hypertension are unaware of their condition (Kertohoesodo, 1979). This condition makes the degenerative and cardiovascular disease become one of public health problem in Indonesia (Armilawaty & Amiruddin, 2007). The results of the SKRT (Household Health Survey) 1972, 1986, and 1992 showed a marked increase in the prevalence of cardiovascular disease and was thought to be the leading cause of death and since 1993. Hypertension arises due to various risk factors such as smoking, sex, obesity, age, and family history with hypertension (Anindya, 2009).

Sugiri reported that in Central Java, the prevalence of hypertension was 6.0% for men and 11.6% for women (Sulistiyani, 2009). Other researchers report that men are at higher risk for hypertension earlier. Meanwhile, at age > 50 years, hypertension is more prevalent in women. Based on JNVC (The Joint National Committee on Prevention) report, hypertension prevalence in Taiwan is 60.4%, in men is 59.1% and in women is 61.9% (Tuty, 2009).

Another factor that affects the degree of hypertension is heredity. In this case, the influence of hereditary factors is 90-95% (primary hypertension), while the influence of other factors is 5% (Sigarlaki, 2006). Individuals with hypertensive parents are twice as likely to have hypertension than individuals with non-hypertensive families (Sulistiyani, 2009).

Another risk factor of hypertension is nutritional status. A person with less or excessive weight will be more at risk for the disease (Supariasa, et al., 2006). The risk of hypertension increases with the occurrence of obesity (Widyastuti & Subagio, 2006). According to the National Institutes for Health USA (NIH, 1998), the prevalence of hypertension in people with BMI > 38 is 38% for men and 32% for women; While the prevalence of hypertension in people with BMI < 25 was 18% for men and 17% for women (Srikanthan, 2009).

Banjar District Health Office (2008) reported that hypertension disease is the third most prevalent disease in the Banjar district of South Kalimantan, 1719 people in January to December 2008. Meanwhile, Martapura Public Health Center is the most visited health service institution in Banjar Regency By people with hypertension. In the last 6 months of 2009, the number of hypertensive patients at the Martapura Public Health Center was 588 people, consisting of 110 people in April, 99 in May, 80 in June, 89 in July, 95 in August And 115 people in September.

Based on the above description, it is necessary to research about the relationship between sex, heredity and nutritional status with hypertension degree in hypertensive patients in the work area of Martapura Public Health Center, Banjar District.

II. METHODS

The research design used in this research was cross sectional. The population in this study were all patients with hypertension at Martapura Public Health Center from February to March 2010, with population size was 588 people. Selected samples were all newly diagnosed patients with hypertension at a visit to Martapura Public Health Center, aged > 20 years, had no history of DM and kidney disease, were not pregnant, and did not eat foods that could excessive hypertension. The sample was chosen by accidental sampling technique.

Data were collected through interviews, examination of nutritional status (height and weight), and blood pressure examination using a stethoscope and a sphygmomanometer. The collected data was classified as categorical data so that it refers to the statement of Nugroho (2010) conducted data analysis descriptively in the form of frequency distribution, then continued with hypothesis testing using Chi square test and Odd ratio calculation.

III. RESULTS

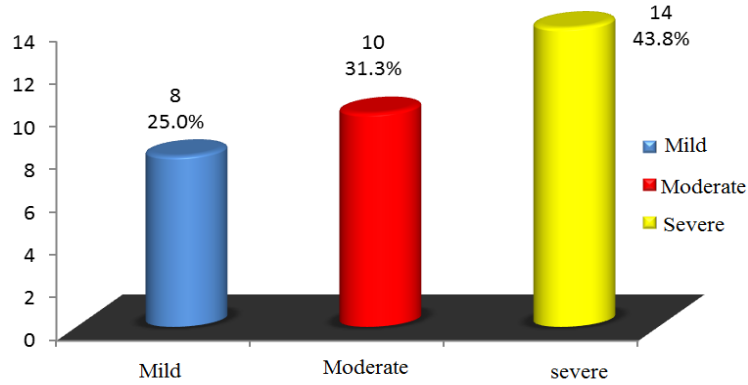


Figure 1. Distribution of Hypertension Degree of Hypertension Patient at Martapura Public Health Center, Banjar District, South Kalimantan Province, Indonesia.

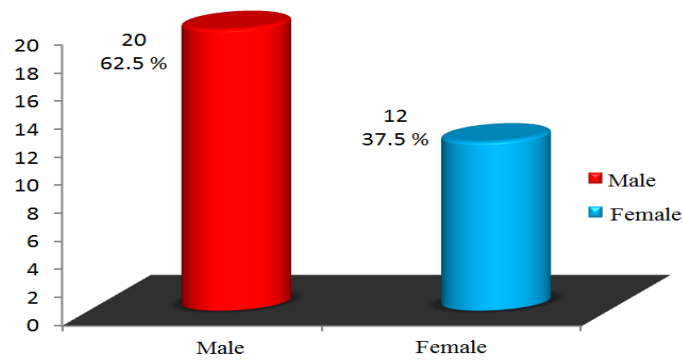


Figure 2. Distribution of Sex of Hypertension Patient at Martapura Public Health Center, Banjar District, South Kalimantan Province, Indonesia.

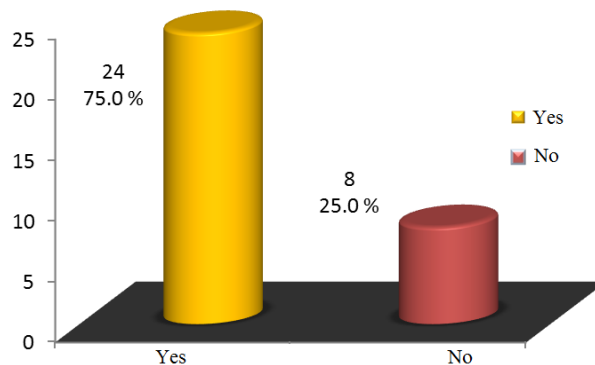


Figure 3. Distribution of Heredity Factor of Hypertension Patient at Martapura Public Health Center, Banjar District, South Kalimantan Province, Indonesia.

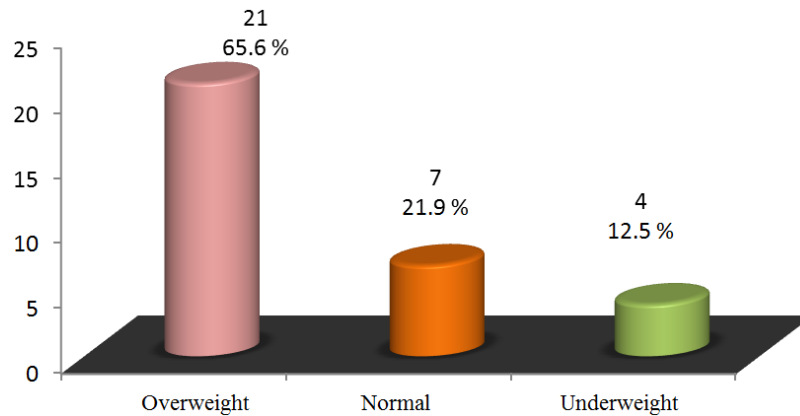


Figure 4. Distribution of Nutritional Status of Hypertension Patient at Martapura Public Health Center, Banjar District, South Kalimantan Province, Indonesia.

Figure 1 shows that most of the respondents had severe hypertension, Figure 2 shows that most of the hypertensive patients were male, Figure 3 shows that most of the respondents had heredity factor, while Figure 4 shows that most respondents were overweight.

Square test results showed the following results:

1. In the analysis of the relationship between sex with the degree of hypertension obtained p-value <0.05 so it was concluded that there was a significant correlation between sex with degree of hypertension.
2. In the analysis of the relationship between heredity with the degree of hypertension obtained p-value <0.05 so it was concluded that there was a significant correlation between heredity with the degree of hypertension.
3. In the analysis of the relationship between nutritional status with hypertension degree obtained p-value >0.05 so it was concluded that there was no correlation significantly between nutritional status with degree of hypertension.

IV. CONCLUSION

Based on the results of the study concluded that the degree of hypertension of patients in the Martapura Public Health Center associated with factors of sex and heredity.

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