

THE RELATIONSHIP BETWEEN SMOKING A WIDE VARIETY OF TYPES WITH HYPERTENSION

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THE RELATIONSHIP BETWEEN SMOKING A WIDE VARIETY OF TYPES WITH HYPERTENSION

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Abstract

Smoking is one of the habits of living that can influence blood pressure. WHO reported in 2008, the number of smokers in the world reached 1.35 billion people. Indonesia was in the third grade of smokers, after China and India with 65 (28%) million smoker or 225 milyard cigarettes in a year.

From the above figures, if aggregated around Indonesia 27.6% smokers, that is, each 4 person Indonesia, there is a smoker. Growth rates in Indonesia cigarettes from 2000 to 2008 was 0.9% per year so that no less than Rp 100 trillion rupiah funds community issued only to purchase approximately 225 billion cigarettes. The impact of smoking for health is a disease related to cardiovascular system that many people suffered from hypertension. In the RSUDAM province of Lampung, a patient with hypertension visits per year reaching 1000 patients. This research aims to know the relationship between smoking a wide variety of types with hypertension. The design used in this study is *cross sectional*.

The population in this study were smoker patients who came for treat their disease to Medical Clinic in of Dr. h. Abdul Moeloek HOSPITAL. Samples taken by quota sampling methode, with criteria 1) has no genetic hypertension, 2) no obesity, 3) not consumption salt more than 1.5 TSP/day. Number of the sample was counted by a formula to test hypothesis of difference two proportions (Lemeshow, 1997) and obtained the 188.

Of research results obtained by the proportion of respondents who smoke kretek type as much as 34%, smoking a cigarette filter types as much as 15.4% and smoking cigarettes mild types obtained as much as 24.5% as well as various types of smoking smoking is obtained as much as 26.1% of the 188 respondents. The proportion of respondents who are suffering from hypertension as much as 24.5% whereas respondents who do not suffer from hypertension as a landslide 75.5% of the 188 respondents. According to results of a statistical analysis of the relationship between smoking and various kinds of hypertension found no relationship with Indigo p value 0.409. It is recommended to people who still will smoke in order to pay attention to other risk factors to avoid hypertension, given there are several risk factors that contribute to the incidence of the disease of hypertension.

Keywords: cigarette smoking, hypertension

Hypertension is one of disease that causes high number of pain. According to Adnil Basha (2004). Hypertension is a condition that someone experiences increasing blood pressure, above normal and then trigger

high numbers morbidity or mortality. Lanny Sustrani, et al (2004) explained, hypertension or high blood diseases is vasculars disorders making supply of oxygen and nutrients carried by blood can

not reach the body tissue which needed. Hypertension symptoms can continue to target organ like the brain (stroke), heart blood vessels (coronary heart disease), heart (*left ventricle hypertrophy*). Bustan, (2000), . Hypertension often referred as *silent killer* because can cause death without warning. Hypertension is primary risk factor for coroner heart disease and vascular disorders in brain, call stroke. When blood pressure increase, life expectancy decrease. (Wardoyo, 1996).

Many factors contributed to hypertension, include risk factors can not be controlled (major) and risk factors that can be controlled (minor). Risk Factors that can not be controlled (major) such as genetic, sex, race and age. While the risk factors that can be controlled (minor) are, lack of exercises, food (custom eat salty food), alcohol, stress, over weight (obesity), pregnancy and the use of the contraceptive pill (Asep Pajario, 2002).

Smoking is one of habits, can influence blood pressure. When someone smoking, his vasculer at parts of the body will narrower, and at this condition, body needs higher pressure to reach all parts of the body, therefore, heart will pump more, making blood pressure increase. (Wardoyo, 1996). Cigarettes can increase blood pressure. Cigarettes can make vasoconstriction of perifer and also in kidney vascular and finally increase blood pressure.

Smoking one cigarette in a day will increase systolik pressure cigarette 10–25 mmHg and increase heart beat 5–20 times in a minute (Mangku Sitepoe, 1997:29). Smoke one Cigarette, can influence increasing of blood pressure. This is because Cigarette contains dangerous substances, include 4000 type chemistry and 200 from this are very poison, such carbomonoksida (CO) which make blood vessel cramp and increasing blood pressure and blood vessels wall can tear. (Suparto, 2000:74). Carbomonoksida

also can make *desaturation hemoglobin*, lowering oxygen circulation for all body tissue and also miocard.. CO replace oxygen place in hemoglobin, disturb oxygen release and hasten mempercepat *aterosclerosis* (calcification or thickening of blood vessels wall). Nicotine also stimulate then increasing of blood pressure. Nicotine activates trombosit and later appresing adhesive trombosit (Clotting) to blood vessels walls. Nicotine, CO and other substances in cigarette smoke, proved destroy endotel vessels and clotting. (G.Sianturi, 2003).

Effects of cigarettes smoke will fell after 10–20 year. The effects of cigarettes smoke not only for the user (*Active smoker*), but also for *Passive smoker*. People who are not smoking or passive smoker but exposure to cigarettes smoke will inhale twice time poison that exhale by active smoker. (Ruli A. Mustafa, 2005). If one cigartte ending in 10 times inhale, in one box 20 cigarettes, and in a year the smoker will experience 70.000 times inhale cigarettes smoke. Some chemsitries in cigarette cumulative in our body, one day the amount of substances reach lethal dose, all signs and symptoms appear. (Sitepoe, 1997).

WHO reported in 2008, the number of smokers in the world reached 1.35 billion people. Indonesia was in the third grade of smokers, after China and India with 65 (28%) milion smoker or 225 milyard ciarettes in a year. The smoker statistic in Indonesia children and tenage around 24,1% for the boy and for the girl 4%. Adult smoker in Indonesia are at man 63%,(man) and 4,5%. (woman) From that number we can see the amount of smoker in Indonesia around 27,6%, it's mean in every 4 people in Indonesia, we will fine one smoker. This percentage more bigger than in America, nowadays only around 19% or only one smoker in every 5 people. The number of smoker at period 2000-2008 was

0.9 %, people spending money Rp 100 tryliun only for buying 225 milyar cigarettes. (<http://nusantarane.ws.wordpress.com/buku-tamu>).

Data reported by the Global Youth Tobacco Survey (GYTS) mention teens Indonesia was exploitasioned by industry and 34% of student Junior High School ever smoking. The more importing is two from ten student in Indonesia trying to smoke since they were under 10 years old. Various surveys prove the death rate (mortality) caused by smoking from year to year continues to increase. According to the World Health Organization (WHO), every year 5 million people died because smoking and by 2030, we predict 10 million people dead every per year. In addition, smoking is very close to the drugs that will destroy the future of the next generation of the nation (<http://www.pdpersi.co.id/website/pers>).

The content of cigarettes that may trigger increasing blood pressure is *nicotine*. Nicotine is one of the key ingredients in tobacco. Nicotine has function to stimulate chemicals in the brain that lead to addiction and nicotine stimulates the production of adrenal glands become more actively so that it can increase the heart rate and blood pressure. Nowadays many manufacturers cigarrettes propagate can lower the levels of nicotine in tobacco so that it has a low risk of cardiovascular-related diseases, <http://thearp3gas.blogspot.com/2008/12/komposisi-utama-rokok.html>.

Cardiovascular disease is a degenerative disease that is influenced by many factors. One factor is smoking. Diseases of the cardiovascular system is related that many suffered by society is hypertension. At The Hospital Dr. Hi. Abdul Moeloek Lampung Province, patient with hypertension average will reach 1000 patients. In addition, Hospital Dr Hi. Abdul Moeloek province of Lampung is the reference hospital in the province of Lampung, so that their cases will be more complex and a lot

of determination and diagnosis is based on the examination of the necessary support.

Based of the phenomenon, the authors interested to study relationship between the smoking habits of various types of cigarettes with hypertension. The goals of this study was to find out the relationship between smoking various types of cigarettes with hypertension. Specifically this study goals find out a). description of the frequency distribution of respondents smoking various types of cigarettes, b). description of the frequency distribution of respondents suffering hypertension, and c). the relationship between smoking various types of cigarettes with hypertension

METHODOLOGY

The research method used survey research methods, the emphasis was focused on the research corelational research design, with cross sectional. Data collection tools were form of a questionnaire to respondent who has smoking habit (independent variables). The questionnaire designed and developed by researchers, Collecting data for dependent variables used several ways including questionnaires or diagnosis directly measure to the respondents.

The population in this study were smoker patients who came for treat their disease to Medical Clinic in of Dr. h. Abdul Moeloek HOSPITAL. Samples taken by quota sampling methode, with criteria 1) has no genetic hypertension, 2) no obesity, 3) not consumption salt more than 1.5 TSP/day. Number of the sample was counted by a formula to test hypothesis of difference two proportions (Lemeshow, 1997) and obtained the 188.

Data analysis was carried out in two stages, univariate and bivariate. Univariate analysis was conducted to get an overview of statistics descriptive from each of the variables, the dependent and independent which both variables were catagorie, so

value scale was the percentage of size frequency distribution. Tests bivariat used chi square, because both the variables were catagoric.

RESULTS AND DISCUSSION

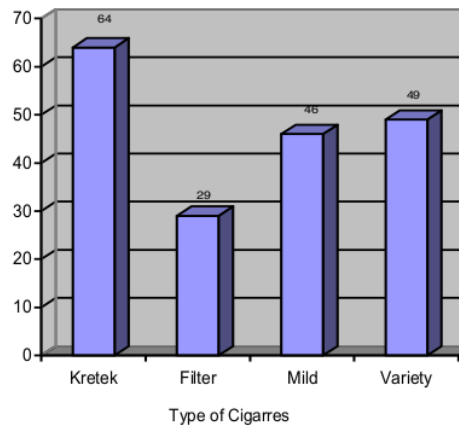
RESULTS

The characteristic responden base on time and using cigarette, most of the respondents, 161 (85,6%) from 188, taking cigarettes for long time. Respondent taking cagarrete for long time and their already using caigarrets more than 10 year. Age when they started smoking, most started at below 15 year, 111 responden or 59% from 188 respondent. Started smoking at 15-20 year old. Category smoker, most respondent, 110 respondent or 58,5% from 188 respondent in mild smoker catagory. (10-20 rod/day).

Results of the univariate analysis respondents characteristics of obtained description of average age, 45.4 years with standard deviation at 14 years old. The youngest respondents were 19 years old and the oldest respondents 94 years. The majority of respondents education were JUNIOR HIGH SCHOOL level or HIGH SCHOOL, 105 respondents or 55.9% from 188 respondents. Body mass index (IMT) of respondents the majority are normal as many as 136 respondents (72,3 percent) from 188 respondents. Respondents's characteristics for time as smokers, the longest smoker were than 10 years, 161 respondents or 85,6% . Age started smoking 15-20 years old, 111 respondents or 59% . Categories of smokers, the majority of the respondents were midle smokers, 110 respondents or 58.5%, (10-20 rods per day).

Results of univariate analysis based on the type of Cigarettes can be seen in diagram 1 below

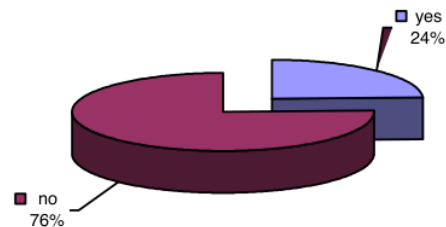
Diagram 1
Distribution of Respondents By type of Cigarettes (N = 188)



Based on diagram 1 above can be seen that, most respondents smoke tobacco type, 64 or 34% of the respondents from 188 respondents.

Univariate analysis based on respondents with hypertension viewed on diagram 2 below

Diagram 2
The distribution of Hypertension Respondents (N = 188)



Based on diagram 2 above, most of the respondents did not suffer hypertension with 142 respondents (75.5%) from 188.

Results Bivariat analysis with chi square can be seen in table 1 below.

Table 1
The distribution of Respondents with various types of cigarettes and suffering hypertension

Types Of Smoking	Suffering From Hypertension				Total	
	Yes		Not		n	%
	n	%	n	%		
Clove cigarettes	15	23.4	49	76,6	64	100
Filter	4	13.8	25	86,2	29	100
Mild	12	26.1	34	73,9	46	100
Variwty	15	30.6	34	69,4	49	100
The amount of	46	24.5	142	75.5	188	100
P Value	0,409					

1 Based on table 1 above, the analysis results showed the relationship between the clove cigarettes with hypertension, obtained, 15 respondents (23.4%), suffering hypertension, while not suffering from hypertension, 49 respondents (76,6% owned). On the type of cigarette filters, suffering from hypertension, 4 respondents (13.8%), while not suffering from hypertension, 25 respondent (86,2%). On the type of suffer mild cigarettes, suffering hypertension, 12 respondents (26.1%), and who not suffer was 34 (73,9%), on the various type of cigarettes, suffering hypertension sebanyak 15 respondents (30.5%), while not suffering from hypertension was 34 respondents (69.4%). Test result statistics retrieved value p value was 0,409, then it can be concluded that there was not difference between the proportions types of cigarettes with the incidence of hypertension.

DISCUSSION

Univariate analysis on most respondents smoke kretek type i.e. 64 or 34% of the respondents of the 188 respondents. Tobacco type cigarette has about 20 milligrams of tar and 4-5 milligrams of nicotine. Greater content of tar and nicotine from smoking mild, so cancer risk so bigger anyway. Nicotine is a poison that acts directly to the brain, damage the body and mind.

Yamin Rajaman stated content of the levels of nicotine in cigarettes kretek melebihi 1.5 mg that is 2.5 mg and tar levels in cigarettes kretek melebihi 20 mg that is 40 mg. cigarettes mengandung 60 – 70% of temmangrove, the remaining 30% – 40% clove and ramuan standardized Indonesian etc. Clove mengandung eugenol which is considered potentially mto become the cause of kangker on manusia and associated with the substance kimia satrol a mto become either a mild cause of cancer (Pdpersi, 2003).

Cigarettes have nicotine levels and larger tar and diserta filters on cigarettes, then rank the potential entry of nicotine and tar into the lungs than smoking filter or non kretek cigarette will be greater than the impact bad filters on the wearer and one of them will be exposed to the risk of hypertension.

Univariate analysis based On suffering from hypertension or whether it brings most of the respondents did not suffer from hypertension which amounted to 142 respondents or landslide 75.5% of the 188 respondents.

4 According to Adnil Basha (2004: 1) hypertension is a condition in which a person is experiencing an increase in blood pressure above the normal numeric pain resulting in morbidity and mortality (mortality).

Many factors contributed to hypertension, include risk factors can not be controlled (mayor) and risk factors that can be controlled (minor). Risk Factors that can not be controlled (mayor) such as genetic, sex, race and age. While the risk factors that can be controlled (minor) are, lack of exercises, food (custom eat salty food), alcohol, stress, over weight (obesity), pregnancy and the use of the contraceptive pills and smoking. (Asep Pajario, 2002).

When associated with age, blood pressure tend to increase as you getting older, the chances of a person suffering from

hypertension are also getting bigger. In general people with hypertension are those age 40 years but currently does not cover possible suffered by young people.

The bivariat analysis was obtained by the value of p value 0,409, then it can be concluded that there is no difference between the proportions of types of cigarettes with the disease incidence of hypertension.

³ The results of this research was different with the results of research, Suparto(2000), stated inhale cigarette will be have major influence on the increase of blood pressure or hypertension. This can be caused because the gas CO₂ which produced by cigarette smoke can make vaskuler blood "Cramp" so that blood pressure rises, wall of perifer become ripped.

The results of analysis in this study Stated that there was not relationship between smoking various types of cigarette with hypertension. The results of this research may be so because, many factors contributed to the occurrence of hypertension of meliputi not risk factors can be controlled (mayor) and risk factors that can be controlled (minor). Risk Factors that cannot be controlled (mayor) such as descent, types of kelamin, ras and umur. While the risk factors that can be controlled (minor) namely sports, makanan (custom mamgara kan), alcohol, stress, overweight (obesity), kehamilan and the use of the contraceptive pill (Asep Pajario, 2002).

Hypertension merupakan statemana blood pressure be ascended and persisting on the pressure the meskipun is deeply relaxed (Iman Suharto, 2002: 50). According to Allison Hull (1996: 19) hypertension is blood pressure are exaggerated and hampir is not constant in the arteries. The pressure generated by the heart's strength when memmo pa blood. Blood pressure is influenced byacur h heart and peripheral

resistance. A variety of factors which mempengaruhi bulk of the heart and peripheral resistance would be mempengaruhi blood pressure. One of them is not good living habits such as merokok.

³ The results of this research also supported some of the risk factors of hypertension that is not a risk factor like the majority of the respondents i.e. 136 respondents (72,3%) of respondents have 188 IMT normally. In addition, most respondents are in the categories of smokers being (10-20 rods per day) as much as 110 respondents or 58.5% of the 188 respondents.

Although nicotine and merokok diastole blood pressure raises in acute, namun no tamPack of more frequent among smokers, and pressure slightly changed diastole when people berhenti merokok. It is probably related to the fact that smokers will have lighter BB 5-10 Kg compared to people not smokers who sama high age, badannya, type of kelaminnya. Bila mroute stop mesmoking, weight loss often goes up. The two powers, the descent of diastole due to pressure of nicotine and the rise in pressure due to the increased diastole weight, tampaknya mengimbangi satu sama the other on most people, so that the pressure of diastole little changed when they stop merokok.

CONCLUSION AND RECOMMENDATION

The proportion of respondents with various type of cigarettes obtained, respondents who smoke tobacco type, 34 percent of the respondents, smoking filter cigarette types, 15.4% of respondents and smoking mild cigarettes types obtained 24.5% . The majority respondents used various types of cigarettes, 26.1% from 188 respondents. The proportion of hypertension respondents, 24.5% and not hypertension, 75.5% from 188 respondents.

The relationship between smoking various type cagarettes kinds with hypertension,

found no relationship with p value 0.409.

REFERENCES

- NN (2009), the 10 countries with the world's largest number of Smokers, retrieved from <http://nusantaranews.wordpress.com/buku-tamu/> retrieved on May 31, 2009
- (2008) , Two of the 10 Indonesia Students start smoking , retrieved from <http://www.pdpersi.co.id/website/pers> on January 12, 2008
- (2008) , [The main composition of smoking](http://thearp3gas.blogspot.com/2008/12/komposisi-utama-rokok.html) , retrieved from <http://thearp3gas.blogspot.com/2008/12/komposisi-utama-rokok.html>, on December 22, 2008
- Adnil Basha (2004), *Hipertensi: Risk Factors And Management*, retrieved from <http://angelnet.info/index> , on October 12, 2009
- Bustan, m. n., (2000), *the epidemiology of p.enyakit is not Contagious*. Jakarta: Cipta Rineka
- G. Sianturi, (2003), *smoking and Healthn*, retrieved from <http://kompas.com> on May 25, 2011
- Mangku, Sitepoe, (1997),. *Efforts To Prevent The Dangers Of Smoking*. Jakarta: Gramedia
- Lanny Sustrani, et al. 200 (4) . *Hipertensi*. Jakarta. P T. Gramedia Uta Libraryma
- Pdparsi (2003), *what is it with cigarettes*. [http. www. red-bondowoso.or.id](http://www.red-bondowoso.or.id)
- Ruli A, Mustafa, (2005), *beware of the dangers of smoking*, retrieved from [www.Combat2005](http://www.Combat2005.com). Glogdrive.com on June 21, 2011
- Suparto, (2000). *Healthy Toward The Age Of Twilight*. Bandung: Remaja Rosdakarya Effset
- Sweens, (1996), *the prevention of heart disease Koroner*. Solo: Bookstore Agency

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