

THE RELATIONSHIP BETWEEN HYPERTENSION AND RECURRENT STROKE: LITERATURE REVIEW

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ABSTRACT

Purpose of Study: Stroke is a disease that harms function and occurs abruptly. That was caused by the lack or disturbance of blood that flowed to the brain, and it caused blood coagulation. Prevalence of Stroke (PERMIL) in the population age > 15 years old referred to province in 2013-2018 increased to 8,3%/1000 in 2013, and it became 14,7%/1000 population in 2018. Hypertension or high blood pressure was the elevation of somebody's systolic blood pressure >140 mmHg and diastolic blood pressure >90 mmHg, measured regularly twice when the patient was in condition with adequate rest. **Methodology:** The research used a literature review focused on writing results related to topics or research variables. The data used in this research were from 15 international and national journals. **Results:** Based on journal results obtained and analyzed by the author, there were correlations between Hypertension and recurrent Stroke. **Applications:** As research reference material for future researchers, as well as adding knowledge and insight to stroke patients in preventing recurrent strokes.

Keywords: Stroke, Hypertension

INTRODUCTION

According to Risdianto & Priambada (2015), a Stroke is when The blood coming to the brain stops suddenly. This is because there is blockage blood is coming to brain stopped witsudden , incide.nt This is Because there is blockagand cessation ofon Genre blood is coming to brain . Brain very depends on flow blood from outside brain different from other body parts. Because if Genre blood is coming to part brain stop so brain No get supply oxygen and energy.

Hypertension is one frequent illnesses We meet in society with addition amount sufferer every the year. Usually sufferer hypertension This accompanied symptoms and not accompanied with symptoms, Hypertension This become always become threat (Situmorang, 2015).

Stroke is deadly disease number 2 after disease heart. Onset this Stroke triggered also because Hypertension or called the silent killer, diabetes mellitus, obesity and disorders Genre blood to brain. Number stroke incidence in the world about 200 per 100,000 residents in a year. In Indonesia it is estimated There is as many as 500,000 residents attacked Stroke and there are around 25% or 125,000 people died whereas the rest experience disabled light until heavy (Pudiastuti, 2011).

According to the World Health Organization (WHO), as many as 63% of deaths occur in the world caused by disease No contagious one of them is Stroke with amount death a year as much as 36 million soul. Stroke sufferers with 45 years old Keep going increase every year. In England at a conference from expert nerve International report that There are 1000 people who suffer from stroke age not enough from 30 years. (American Heart Association, 2012 in Despitasari, 2020). Recurrent Stroke is one reason death Most often in Stroke and attack sufferers from repeated strokes This can happen in period time not enough from 6 months post The sufferer experienced the first Stroke. Every In the year the United States had 780,000 inhabitants suffered a stroke, 180,000 people Association, 2008). According to the National Stroke Association (NSA) in 2009 explained amount presentation recurrent stroke sufferers by 3-10% at 30 days after happen first stroke attack and 5-14% of them in one years and 25-40% in period 5 years (National Stroke Association, 2007).

METHODS

Design study is A design plans made by researchers for research can applied with effective and efficient (Arikunto, 2013 in Nursalam, 2020). The type of research that will be used in Study This is Study

with use method studies literature or literature reviews that focus on outcomes related writing – with topic or variable research. Literature review is overview comprehensive about existing research done about specific topic For showing to reader about what 's been is known about topic what is and what is not known, for look for rational from existing research done or It could also be for research ideas next (Denney & Tewksbury, 2013).

RESULTS AND DISCUSSION

Search study via Google School and PubMed using the keywords recurrent stroke and Hypertension. Search use Pubmed obtained article 2007 and on Google Scholar found results 10,300. Grand total is as many as 12,307 journals. Study First is Study This aim For compare index patient with Hypertension and Stroke and evaluate indicator best For identify patient with second disease in Korean population. Deep sample study This is individuals over 50 years of age. This produce size sample of 13,682 subjects in total. Study This is studies experimental . With using a cross sectional surge. Research results This pointed out information clinical fundamentals required For support prevention and management Hypertension and Stroke and shows potency screening scale big

Study second is Study This aim For explore possibility connection between Hypertension -H type and severity of ischemic stroke prognosis acute . Deep sample study This were 372 patients with ischemic Stroke acute and divide it become four group: group hypertension H type, group hypertension simple, group simple and group hyperhomocysteinemia (HHcy) control. Study This is contribution of quantitative data and Levene's test used For the homogeneity test . T test or ANOVA one direction done For compare distribution quantitative data. Results This showing that hypertension type H does not independent with factor risk incident point end after a stroke.

Study third is Study This aim For know activity role physique in Hypertension. Strain and Stroke through a 10 -year longitudinal learn . Deep sample study This is man Korea with aged 20 to 70 years with total 5,624,503. Sample Research design No explained in the article. This result showing that If in a way regular done currently amount activity physique Possible beneficial in reduce risk hypertension and Stroke, however the effect excessive weight.

Study fourth is Study This aim For compare difference level Hcy and CRP in patients with FIS

and RIS, and for explore connection between hypertension H type and CRP and RIS levels. Samples on Study This is a total of 987 patients with ischemic Stroke acute being treated At home Sick during phase acute . Study This use studies cross sectional observational . Research results This showing that hypertension type H and CRP levels increase risk of RIS, which is possible related with happen inflammation.

Study fifth is Study This aim For test connection disease kidney chronic (CKD) with recurrent strokes and for evaluate is function kidney beginning modify effect from pressure control blood systolic intensive care for patients with previous Stroke. Sample in research This is as many as 3020 patients. Research This use multicenter randomized clinical trials . Research results This indicates increasing CKD risk of recurrent Stroke by 50% in patients with lacunar Stroke before

Study to six is Study This aim For test Longitudinal association of frequency exercise with incident infarction myocardial, Stroke, Hypertension, type 2 diabetes and 10 outcomes different cancers. Sample in research This as many as 257,884 residents South Korean adults. Study This use design studies cohort prospective. Results study This showing level moderate from stimulating exercise sweat showing risk infarction myocardium lowest, Stroke, Hypertension, type 2 diabetes, stomach, lung, liver and cancer head & neck. Because sport brings out sweat as prevention strategic behavior for disease No infectious

Study to seven is Study This aim For connection between Hypertension and levels severity of ischemic Stroke with diabetes mellitus. Samples in the Study This is 50 patients with ischemic stroke attack First with diabetes mellitus. Study This using cross sectional. Research results This showing that No There is connection between Hypertension with Severity of new- onset ischemic stroke in diabetes patients

Study to eight is Study This aim For investigate HIV treatment, Hypertension , as factor Stroke risk in Malawian adults . Sample in research This is as many as 222 adults with acute Stroke confirmed by MRI in 86% and 503 controls population. Study This use case control . Research results This showing that on the population with HIV prevalence is high, where stroke incidence increases

Study to nine is Study This aim For evaluate connection between Hypertension with incidence

of recurrent Stroke. Sample in the Study This is as many as 11,560 people with Hypertension and ischemic Stroke. Research This using data from China's national stroke registry was examined and follow-up data continued 1 year For stroke recurrence. Research results This showing from a total of 11,560 patients with ischemic Stroke and with Hypertension, patient with Hypertension own risk For had a recurrent stroke 10th research is Study This aim For review systematic trials controlled in a way random person investigating effect of angiotensin receptor blockers (ARBs). Sample in research This is as many as 3728 patients. Design study This No explained in articles. Results study This showing No There is effect treatment that looks at dependence , mortality and incidence vascular on one until six month .

The 11th research is Study This aim For know connection hypertension with the incidence of recurrent Stroke in sufferers post- Stroke at the RS.TK.III Reksodiwiryo Polyclinic . Samples in research This is as many as 80 people. Study This use cross-sectional design . Research results This showing there is connection hypertension with the incidence of recurrent Stroke in sufferers post-Stroke.

The 12th research is Study This aim For find correlation characteristics and support from family elderly with suffering from recurrent strokes Hypertension at Haji Adam Malik General Hospital. Samples in the Study This is as many as 147 people with suffering stroke patients hypertension. Study This use cross-sectional design. Research results This showing majority patient hypertension is elderly manifold sex female , Batak , educated low , and no working.

13th research is Study This aim For know connection between rate HDL cholesterol and Hypertension against ischemic Stroke repetitive . Sample in research This as many as 70 samples. Research This use design case control study.

Research results This showing patient with low HDL levels 3.5 times risk of experiencing an ischemic stroke repetitive. whereas patient with Hypertension 5.9 times risk of experiencing an ischemic stroke repetitive .

Study the 14th is Study This aim For know connection characteristics and Hypertension with incidence of ischemic Stroke in Ngimbang Regional Hospital Lamongan 2016. Case sample is ischemic stroke sufferers whereas sample control is

a non- ischemic stroke . Sample in research This as many as 44. Research This use design analytic observational with design build case control. Results study This show there connection between age, type gender, employment status and Hypertension with incidence of ischemic Stroke in Ngimbang Regional Hospital Lamongan 2016.

The 15th research is Study This aim For identify and explain factor associated risks with incident stroke. Samples on research This as many as 103 respondents. Research This use design analytic observational with design build case control. Results study This conclude history hypertension and activity physique is factor risk related independent with type of Stroke.

DISCUSSION

Discussion results from journal This is there are 13 journals that state there is connection between Hypertension with the incidence of Stroke, and there are 2 journals that say No There is connection hypertension with recurrent stroke events. Hypertension is disease marked chronic with pressure more blood (BP). tall from normal range, is problem Major global health factors and factors risk disease cardiovascular disease (CVD), infarction myocardial infarction (MI), Stroke, and death consequence associated complications (Ohishi , et al. 2011, Staessen , et al, 2003 & Whitworth, 2003) in Study conducted by Woo, et al. (2004) shows that Hypertension is factor very important risk For the occurrence of a stroke. One of them is research conducted by Sang Yeob Kim & Gyeong Hee Nam (2020).

With title "Assessment of anthropometric and body composition risk factors in patients with both Hypertension and Stroke in the Korean population ". study This use method study 3 survey with cross-sectional design. Respondents in research This as many as 37,753 participants and participants in the research This done inspection health, blood parameters , assessment anthropometrics, and measurement body fat mass and BMD. Research results This show that composition body, fat mass in men nor women , and BMD have influence significant to Hypertension and Stroke. From the results analysis study researcher assume that Hypertension is very influential to the occurrence of a stroke. This thing supported by research conducted by Tan Li, et al (2018). Yang entitled ""Association of H hypertension with stroke severity and prognosis. Method four group: group hypertension type H, group hypertension simple ,

group hyperhomocysteinemia simple (HHcy), and group control. Research objectives This is For explore possibility connection between hypertension H type and level severity and prognosis of ischemic Stroke acute . Research results show that current NIHSS score enter in group hypertension-H type (6.32 ± 5.91) respectively significant more tall rather than in groups control (3.97 ± 3.59) ($P < 0.05$), while No There is clear relationship between H- type hypertension and NIHSS score after 2 weeks treatment ($P = 0.106$). This thing in line with theory according to Guo G found that risk happen plaque in patients with hypertension type H was 1.63 times the number of patients with Hypertension systolic simple (or isolated). They more carry on find that high homocysteine concentration can worsen stress oxidative stress in Hypertension For produce effect contribute to the disorder vascular (G. Guo, et al. 2018). Based on results analysis carried out researcher assume that results and theory on sustainable, proven with results research that says that There is connection hypertension with strokes.

Disease hypertension and Stroke already become reason death , and becoming burden emotional in Korea (Shin, et al. 2014 & Hong, et al. 2013). This thing in line with research conducted by Yonghwan Kim and Haemi Jee (2017). Entitled "Influences of body mass index and physical activity on hypertension and stroke in Korean adult males: 10-year longitudinal study". Research sample as many as 5,624,503 adults aged Korean man between 20 and 70 have participate in screening health in 2002, 2003, 2012, and 2013 by the Service Korean National Health Insurance. Reason main happen disease This is consequence from factor sex, style living, obesity, consuming alcohol and smoking. (Rapsomaniki, et al. 2014 & Feigin, et al. 2013). Study This done for 10 years about risk hypertension and Stroke based on BMI and activity physical activity carried out by adults specifically Korean man. Results on research This showing that For reduce risk the occurrence of a stroke is sufficient do exercise per week just 4 times. Research This in line with research conducted by Qing Zhang, et al. (2016). Entitled "H-Type Hypertension and C Reactive Protein in Recurrence of ischemic stroke". On research This use method studies observational cross-sectional design . Study This done more from one third patient with diagnosed RIS increased CRP, and almost all patient with RIS diagnosed HHcy (Hypertension Type H). Research results This show habit a life that doesn't Good like smoking, consuming alcohol and style live in men own the risk of RIS is more high . Limitations in Study This studies No including other information (ischemic

stroke severity , grade recovery , and MRI/CT data) for analysis. Based on results analysis study researcher assume that habit a life that doesn't Good can increase risk of ischemic Stroke, and for reduce a stroke can occur done with style life one of them is healthy with method exercising 4 times a week .

CKD disease (Failure kidney chronic) and Hypertension each other related with occurrence of Stroke (Benavente, et al. 2011 & Whelton, et al. 2018). This supported in research conducted by Adhis Agarwal , et al. (2019). Entitled "effect of baseline kidney function on the risk of recurrent stroke and on effect of intensive blood pressure control in patients with previous lacunar stroke: a post hoc analysis of the SPS3 Trial (Secondary prevention of small subcortical strokes)". The result of Study This form first SPS3 post hoc analysis report in a way clear connection between CKD and recurrent Stroke in patients with confirmed and defined previous state of lacunar stroke with good. The SPS3 trial includes patient with magnetic resonance imaging- defined lacunar infarction that occurred in 6 months before enter the trial. With thereby study continuous, where theory and results from Study relate matter This prove it in a way accurate the relationship between CKD and recurrent Stroke.

In research conducted by Yongwon Kim, et al (2018). Entitled "Exercise and incidence of myocardial infarction, stroke, hypertension, type 2 diabetes and site specific cancers: prospective cohort study of 257854 adults in south Korea" researchers explain that obedience exercise that you can stimulate out sweat own risk Lowest For suffered from Stroke, Hypertension and type 2 DM. Research this also concludes that if somebody routine do sport so risk attacked very small disease. Advantages from Study This is This is Study first to check connection exercise physique with various incident happen disease in East Asian population. Shortcomings in research This that is theory No explained in a way detailed so that researcher only explained results from Study just . Estimated that HIV is also a predisposition to stroke. Viruses can cause Stroke directly (eg , through HIV- associated vasculopathy) or in a way No directly (via infection opportunistic) (Bejamin LA, et al, 2012) Apart from that, some medication used in antiretroviral therapy (ART) for HIV related with syndrome metabolic , so potential increase risk of Stroke with use period long (Moller, et al. 2003) p This in line with Study carried out by Benjamin , et al. (2015). With title "HIV, antiretroviral treatment, hypertension, and stroke in Malawian adults". study This use method studies case-control.

Conclusions on the Study This is respondents with high prevalence of HIV, where the incidence of Stroke is increasing, research This has show that HIV is factor important risks. Early use of ART in patients with immunosuppressants own additional and potential risk of Stroke can treated. Syndrome inflammation recovery immunity Possible contribute to the mechanism disease. The result of Study This showing that HIV infection is factor risk independent on the incidence of Stroke in Malawi, and researchers have also do research and discover patient with HIV and have do treatment in period 6 months time before, however risk stroke still occurs high.

Hypertension is reason main the occurrence of ischemic Stroke (Sacco RL, et al. 1989 & Petty GW, et al. 1998). Wrong the only one is research conducted by Yilong Wang, et al. (2013). With title "Association of Hypertension with stroke recurrence depends on ischemic stroke subtype". Results of the Study This showing that pressure blood tall relate with the incidence of recurrent Stroke in patients with condition vessels blood small.

However Study refuted by research conducted by H Sin, et al. (2019). entitled "Association between Hypertension and the severity of new onset ischemic stroke in diabetic patients ". Research results This show that No There is relationships found between Hypertension with severity of ischemic Stroke new to the patient with diabetes.

Increase in pressure blood (BP) frequently happen after acute Stroke, whether type ischemic or hemorrhagic. Disease This there 's more from three quarter patient, where approx half own history hypertension (Bath P, et al, 2003) and decreased in a way spontaneous in two thirds returned cases to level prestroke during Sunday first. The decline usually occurs 4–10 days after a stroke, but in significant percentage patient down around 25-30% only in the first 24 hours; specifically when they moved to quiet room, they allowed For rest and sleep urinary they empty (Britton, et al. 1986). This thing in line with research conducted by Lattanzi, et al. (2013). With entitled "Elevated Blood Pressure in the acute phase of Stroke and the role of angiotensin receptor blockers ". Study This use type Medline publication of clinical trials or clinical trials controlled or trial controlled random. Result from Study This showing No There is effect dependency on medication.

Disease hypertension is one factor main incidence of ischemic Stroke or hemorrhagic Stroke. Because if pressure blood increase can trigger broke vessels

blood to the brain and can cause bleeding (Rasjidi, 2009) p This supported by research conducted by Despitasari (2020). With title "Relationships hypertension with the incidence of recurrent stroke in sufferers post-stroke". Study This showing that There is connection hypertension with the incidence of recurrent Stroke in sufferers post-Stroke. Somebody Can suffered a stroke as a result bleeding in the brain caused Because pressure High blood pressure in the brain can lead to Stroke occurs in patients Hypertension Because if arteries thickened, so that Genre blood that will going to to brain reduced. Study This in line with research conducted by Hanum, et al. (2018). With title "Relationships characteristics and support family elderly with incidence of Stroke in the elderly Hypertension at home Sick general Adam Malik Hajj Center Medan ". With cross sectional approach. Study This pointed out results analysis univariate produce majority elderly Hypertension aged elderly, various sex female, tribal Batak, education low, no working, married status, owning support emotional, reward, information, and mental instruments.

Analysis results bivariate with using the chi square test shows that from variable age, type gender, support emotional, support appreciation and support information relate with incidence of Stroke in the elderly Hypertension. Based on results analysis study researcher assume that The theory is very consistent in its results research. Proved with exists the relationship is the same in both Study above, that Hypertension is very influential to the occurrence of recurrent strokes.

In research conducted by Kiyenda (2019) with title ""relationship between rate HDL cholesterol and Hypertension to incidence of ischemic Stroke repeated at DR Moewardi Regional Hospital, Surakarta." With study research Analytical Studies observational with design build case control. Chi Square and Regression test results Logistics, the Chi-Square test results show there is significant relationship in a way statistics between rate cholesterol and Hypertension against ischemic Stroke repeated, and from analyst regression logistics obtained results patient with low HDL levels 3.5 times risk of experiencing an ischemic stroke recurrent, and in sufferers hypertension own 5.9 times risk of experiencing an ischemic stroke repetitive.

Conclusion on research This is is rate low HDL cholesterol and Hypertension will trigger risk suffered an ischemic stroke repetitive. Research results This in line with research conducted by

Laily (2017). With title ""Relationships characteristics sufferers and hypertension with incidence of ischemic stroke"". According to Junaidi (2011) disease hypertension (silent killer) is factor main For happen Stroke. Someone Can said Hypertension if pressure his blood reaches 140/90 mmHg, increasingly tall pressure blood somebody so the more big risk had a stroke. Hypertension greatly influences the incidence of recurrent Stroke, disease hypertension This will trigger exists plaque in vessels blood large (atherosclerosis). Appearance plaque This can cause blocked Genre experienced blood narrowing. Condition This can trigger broke vessels blood. Method study This use method analytic observational with design build case control. Conclusion of Study This show exists connection between age , type gender , employment status and Hypertension with incidence of recurrent Stroke at Ngimbang District Hospital Lamongan in 2016. Based on results analysis carried out researcher can concluded that from second journal on There is connection hypertension with the incidence of recurrent Stroke. Differences from second Study is in place research , meanwhile design on both Study on You're welcome using case control.

Pressure blood tall is one factor reason main the occurrence of a stroke. Increasingly pressure blood somebody then it 's very big possibility will suffered a stroke (Riyanda & Rahajeng, 2013). matter This supported in Study This is what Wayunah & Saefulloh (2016) did with title ""analysis related factors with the incidence of Stroke in hospitals in Indramayu". With Study analytic observational with cross sectional study design . Results study This there is significant relationship between Hypertension and activity physique with type stroke. Research This conclude history disease hypertension and activity physique is factor risk related independent with type of Stroke.

CONCLUSION

Study literature review This make description related a number of article study And results study about Connection Hypertension With Recurrent Stroke Events . The results of the literature review were obtained from a number of article study obtained results that there is connection hypertension with incident Repeated strokes .

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