

# **PERBEDAAN KEJADIAN HIPERTENSI PADA PENDUDUK YANG TINGGAL DI DEKAT DAN JAUH DENGAN JALUR KERETA API**

*Aldila Satyanugraha Al Arfah<sup>1</sup>, Zulkhah Noor<sup>2</sup>*

## **INTISARI**

INA-MONICA (multinational monitoring of trends and determinants of disease) melaporkan prevalensi hipertensi di Indonesia berkisar 6-15%. Besarnya kisaran angka prevalensi hipertensi ini menjadikan hipertensi patut mendapat perhatian lebih. Salah satu faktor resiko hipertensi adalah stress akibat bising yang ditimbulkan oleh kemajuan teknologi, salah satunya bising jalur kereta api.

Penelitian ini bertujuan mengetahui perbedaan kejadian hipertensi pada penduduk yang tinggal di dekat dan jauh dari jalur kereta api.

Metode penelitian yang digunakan yaitu metode kausal komparatif crossectional. Populasi adalah penduduk laki-laki dan perempuan dengan usia 35 tahun atau lebih yang tinggal di dekat dan jauh dari jalur kereta api, dengan total sampel 100 per group. Pengumpulan data dilakukan dengan metode observasi yang didasarkan kuesioner dan pengukuran tekanan darah. Analisis data menggunakan *Mann-Whitney test* dan uji beda t-test.

Prevalensi hipertensi penduduk yang tinggal dekat jalur kereta api terdiri atas hipertensi stage I 13 % dan stage II 6 %, tidak berbeda bermakna dengan penduduk yang tinggal jauh dari jalur kereta api yakni stage I 13 % dan stage II 10 % ( $p=0,435$ ). Perbedaan prevalensi hipertensi dengan berbagai faktor resiko pada penduduk dekat jalur kereta api dan penduduk jauh jalur kereta api berturut-turut sebagai berikut: BMI 34,61% dan 40,00% ( $p=0,032$ ), merokok 23,53% dan 47,06% ( $p=0,200$ ), minum-minuman beralkohol 0,00% dan 100,00% ( $p=0,200$ ), riwayat hipertensi 52,94% dan 54,84% ( $p=0,000$ ), tidak melakukan olahraga 18,46% dan 15,63% ( $p=0,029$ ), penyakit pencetus hipertensi 37,50% dan 62,50% ( $p=0,002$ ), diet tinggi garam 32,43% dan 28,13% ( $p=0,034$ ). Bising kereta api tidak mempengaruhi prevalensi hipertensi secara bermakna pada penduduk dengan atau tanpa resiko hipertensi.

Kata kunci: hipertensi, kejadian hipertensi, bising jalur kereta api

---

1. Fakultas Kedokteran Universitas Muhammadiyah Yogyakarta

## **THE DIFFERENCE OF HYPERTENSION PREVALENCE BETWEEN PEOPLE WHO LIVED NEAR AND FAR FROM RAILWAY TRACK**

*Aldila Satyanugraha Al Arfah<sup>1</sup>, Zulkhah Noor<sup>2</sup>*

### **ABSTRACT**

*INA-MONICA (multinational monitoring of trends and determinants disease) reported that hypertension prevalence of Indonesia is 6-15%. The large number of hypertension prevalence made hypertension need more attention. One of hypertension risk factor is stress because of noise. It was proofed by many research specially explain high blood pressure effects due to noise exposure.*

*The objective of research was to find the difference of hypertension prevalence between people who lived near and far from railway track.*

*The research used cross-sectional causal comparative study. The populations are people 35 years old or more who lived near and far from railway track. The samples were 100 subjects per group. We were collected data by interviewed based on the questioner and measured blood pressure. The data were processed by Mann-Whitney test and t-test.*

*The hypertension prevalence of people who lived near from railway track with 13 % hypertension stage I and 6 % stage II wasn't significantly different with the hypertension prevalence of people who lived far from railway track with 13 % hypertension stage I and 10 % stage II ( $p=0,435$ ). The difference of hypertension prevalence between people who lived near and far from railway track with hypertension risk factors were BMI 34,61% and 40,00% ( $p=0,032$ ), smoking 23,53% and 47,06% ( $p=0,200$ ), alcoholics 0,00% and 100,00% ( $p=0,200$ ), history of hypertension 52,94% and 54,84% ( $p=0,000$ ), sports 18,46% and 15,63% ( $p=0,029$ ), diseases caused hypertension 37,50% and 62,50% ( $p=0,002$ ), high salt diet 32,43% and 28,13% ( $p=0,034$ ). The noise of railway track wasn't significantly influence the prevalence of hypertension in people with or without risk of hypertension.*

**Key words:** *hypertension, hypertension prevalence, noise due to railway track*

<sup>1</sup> Medical Faculty of Muhammadiyah University of Yogyakarta

<sup>2</sup> Tbk. Msi. Dwi Putri