

# HUBUNGAN ANTARA TEKANAN ARTERI RERATA PASIEN DENGAN JENIS STROKE DI INSTALASI GAWAT DARURAT RSND SEMARANG

## ABSTRAK

**Latar Belakang:** Stroke merupakan salah satu penyebab utama kematian dan kecacatan di dunia. Penyakit ini terjadi akibat gangguan aliran darah ke otak yang menimbulkan defisit neurologis. Berdasarkan data WHO dan RISKESDAS 2018, prevalensi stroke di Indonesia mencapai 10,9 per mil, dengan angka kejadian yang terus meningkat setiap tahunnya. Stroke terbagi menjadi dua jenis utama, yaitu stroke iskemik dan stroke hemoragik, dengan sekitar 80–90% kasus termasuk tipe iskemik. Tekanan arteri rerata (*Mean Arterial Pressure/*MAP) berperan penting dalam menjaga perfusi otak; penurunan atau peningkatan MAP yang signifikan dapat memicu terjadinya iskemia maupun perdarahan serebral. Namun, hubungan antara tekanan arteri rerata dan jenis stroke masih jarang diteliti di Indonesia. Oleh karena itu, penelitian ini dilakukan untuk menganalisis hubungan antara tekanan arteri rerata pasien dengan jenis stroke di Instalasi Gawat Darurat RSND Semarang.

**Tujuan** Menganalisis hubungan antara tekanan arteri rerata pasien dengan jenis stroke (stroke iskemik dan stroke hemoragik) di Instalasi Gawat Darurat RSND Semarang.

**Metode:** Penelitian ini merupakan penelitian observasional analitik dengan rancangan potong lintang yang dilakukan di Instalasi Rekam Medik RSND Semarang pada periode Januari 2023 hingga Desember 2024. Sampel penelitian terdiri dari 36 pasien stroke yang memenuhi kriteria inklusi. Data yang digunakan adalah data sekunder dari rekam medis pasien, meliputi tekanan darah sistolik, diastolik, dan jenis stroke. Tekanan arteri rerata dihitung dan dikategorikan sesuai klasifikasi tekanan arteri rata. Analisis hubungan antara tekanan arteri rerata dan jenis stroke dilakukan menggunakan uji *Chi-square*, dengan uji *Likelihood Ratio Chi-square*.

**Hasil:** Sebanyak 36 pasien memenuhi kriteria inklusi, terdiri atas 18 pasien (50%) dengan stroke hemoragik dan 18 pasien (50%) dengan stroke iskemik. Rata-rata tekanan arteri rerata (MAP) pada pasien stroke hemoragik sebesar  $113.54 \pm 23.85$  mmHg dan pada stroke iskemik sebesar

110.93 ± 22.29 mmHg. Analisis menggunakan uji *Chi-square* menunjukkan nilai  $p = 0.384$  ( $p > 0.05$ ), sehingga tidak ditemukan hubungan yang bermakna antara tekanan arteri rerata dengan jenis stroke di Instalasi Gawat Darurat RSND Semarang.

**Kesimpulan:** Tidak terdapat hubungan yang bermakna antara tekanan arteri rerata dengan jenis stroke pada pasien di Instalasi Gawat Darurat RSND Semarang.

**Kata Kunci:** Tekanan arteri rerata, Stroke iskemik, Stroke hemoragik, Instalasi Gawat Darurat

**THE RELATIONSHIP BETWEEN MEAN ARTERIAL PRESSURE WITH TYPE OF  
STROKE IN THE EMERGENCY ROOM RSND SEMARANG**

**ABSTRACT**

**Background:** Stroke is one of the leading causes of death and disability worldwide. It occurs due to an interruption of blood flow to the brain, resulting in neurological deficits. According to WHO and the 2018 Indonesian Basic Health Research (RISKESDAS), the prevalence of stroke in Indonesia is 10.9 per mille, with an increasing trend each year. Stroke is classified into two major types, ischemic and hemorrhagic, with approximately 80–90% being ischemic. Mean Arterial Pressure (MAP) plays an important role in maintaining cerebral perfusion; significant increases or decreases in MAP may trigger cerebral ischemia or hemorrhage. However, studies investigating the relationship between MAP and stroke type in Indonesia remain limited. Therefore, this study aimed to analyze the relationship between Mean Arterial Pressure and stroke type among patients admitted to the Emergency Department of RSND Semarang.

**Objective:** To analyze the relationship between Mean Arterial Pressure (MAP) and stroke type (ischemic and hemorrhagic stroke) in patients at the Emergency Department of RSND Semarang.

**Methods:** This was an analytic observational study with a cross-sectional design conducted in the Medical Record Department of RSND Semarang from January 2023 to December 2024. The study involved 36 stroke patients who met the inclusion criteria. Secondary data were obtained from medical records, including systolic and diastolic blood pressure and stroke type. Mean Arterial Pressure was calculated and categorized according to standard classifications. The relationship between MAP and stroke type was analyzed using the Chi-square test and the Likelihood Ratio Chi-square test.

**Results:** A total of 36 patients met the inclusion criteria, consisting of 18 (50%) hemorrhagic stroke patients and 18 (50%) ischemic stroke patients. The mean MAP in hemorrhagic stroke patients was  $113.54 \pm 23.85$  mmHg, while in ischemic stroke patients it was  $110.93 \pm 22.29$  mmHg. Statistical analysis using the Chi-square test showed  $p = 0.384$  ( $p > 0.05$ ), indicating no significant relationship between Mean Arterial Pressure and stroke type in the Emergency Department of RSND Semarang.

**Conclusion:** There was no significant relationship between Mean Arterial Pressure and stroke type among patients treated at the Emergency Department of RSND Semarang.

**Keywords:** Mean Arterial Pressure, Ischemic stroke, Hemorrhagic stroke, Emergency Room.