

ABSTRAK

HUBUNGAN ANTARA LAMA HEMODIALISIS RUTIN DENGAN KEKAKUAN ARTERI PADA PASIEN PENYAKIT GINJAL KRONIS

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Latar Belakang. Pasien PGTA yang menjalani hemodialisis rutin memiliki risiko terjadinya kekakuan arteri. Pengaruh hemodialisis terhadap kekakuan arteri menurut beberapa penelitian memberikan hasil yang saling berlawanan. Kekakuan arteri pasien hemodialisis diketahui berkaitan dengan risiko gangguan kardiovaskuler. Pemeriksaan kekakuan arteri menggunakan metode *Cardio Ankle Vascular Index* (CAVI), sederhana, cepat, mudah.

Tujuan. Tujuan penelitian ini adalah mengetahui hubungan antara lama hemodialisis rutin dengan terjadinya kekakuan arteri berdasarkan metode pemeriksaan CAVI pada pasien-pasien hemodialisis rutin.

Metode. Metode penelitian ini adalah penelitian potong lintang, diskriptif, pada pasien hemodialisis rutin di Rumah Sakit Dr. Soeradji Tirtonegoro Klaten. Sebanyak 95 subyek penelitian terlibat di dalam penelitian ini. Pengumpulan data dilakukan dengan wawancara, data sekunder rekam medis, pemeriksaan CAVI dan laboratorium.

Hasil penelitian. Setelah dilakukan analisis menggunakan model *Receiver Operating Characteristics* (ROC) menunjukkan *cut off* lama hemodialisis yang dapat memprediksi terjadinya kekakuan arteri dengan sensitivitas minimal 80% adalah 14,5 bulan (spesifisitas 44%). Berdasarkan uji *chi-square* diketahui bahwa lama hemodialisis dengan *cut off* 14,5 bulan memiliki hubungan dengan skor CAVI > 9, sebagai penanda kekakuan arteri dengan $p = 0,010$ dan rasio prevalensi 1,846 (IK 95% : 1,074-3,172). Usia, indeks massa tubuh dan hipertensi mempengaruhi kekakuan arteri secara tidak independent.

Diskusi. Pengaruh hemodialisis terhadap kekakuan arteri menurut beberapa penelitian memberikan hasil yang saling berlawanan. Pada penelitian ini didapatkan hubungan antara lama hemodialisis dengan kekakuan arteri.

Kesimpulan. Didapatkan hubungan antara lama hemodialisis dengan kekakuan arteri. Diperlukan penelitian prospektif untuk hasil penelitian lebih baik.

Kata kunci; Kekakuan arteri, hemodialisis, skor CAVI

RELATIONSHIP BETWEEN DURATION OF ROUTINE HEMODIALYSIS AND ARTERIAL STIFFNESS IN CHRONIC KIDNEY DISEASE PATIENTS

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Background. PGTA patients undergoing routine hemodialysis have a risk of arterial stiffness. The effect of hemodialysis on arterial stiffness according to some studies gives opposite results. Arterial stiffness of hemodialysis patients is known to be associated with the risk of cardiovascular disorders. Arterial stiffness examination using cardio ankle vascular index (CAVI) method, simple, fast, easy.

Purpose. The purpose of this study was to determine the relationship between the duration of routine hemodialysis and the occurrence of arterial stiffness based on the CAVI examination method in routine hemodialysis patients.

Method. This research method is a cross-sectional, descriptive, study in routine hemodialysis patients at Dr. Soeradji Tirtonegoro Hospital Klaten. A total of 95 research subjects were involved in this study. Data collection was carried out by interviews, secondary data of medical records, CAVI and laboratory examinations.

Research results. After analysis using the Receiver Operating Characteristics (ROC) model, it showed a long cut off of hemodialysis which can predict the occurrence of arterial stiffness with a sensitivity of at least 80% is 14.5 months (specificity 44%). Based on chi-square tests, it is known that the duration of hemodialysis with a cut off of 14.5 months has an association with a CAVI score of > 9 , as a marker of arterial stiffness with $p = 0.010$ and a prevalence ratio of 1.846 (IK 95% : 1.074-3.172). Age, body mass indexes and hypertension affect the stiffness of the arteries in a non-independent manner.

Discussion. The effect of hemodialysis on arterial stiffness according to some studies gives opposite results. In this study, a relationship was obtained between the duration of hemodialysis and arterial stiffness.

Conclusion. A relationship was obtained between the duration of hemodialysis and arterial stiffness. Prospective research is needed for better research results.