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## Correlation between 6-minute walking test distance and ejection fraction to cardiovascular events in chronic heart failure patients

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**Background:** The 6-minute walk test (6MWT) is a simple and inexpensive test that can be used to assess functional capacity and prognosis in patients with chronic heart failure (CHF). Several studies have reported that there is significant correlation between the distance in 6MWT and cardiovascular events in patients with CHF.

**Aim:** Aim of this study is to determine the correlation between distance in 6MWT and ejection fraction (EF) to cardiovascular events (CE) in our CHF patients.

**Methods:** The study used prospective cohort study with observational-analytic. The sample are taken from patients with CHF. Dr. R. D. Kandou Hospital with purposive sampling technique and patient's distance is measured by the 6MWT and the EF by using 2D echocardiography and analyzed using Chi-Square test.

**Results:** The result showed that from 16 patients with 6-MWT<300 m, where 25% had CE, rehospitalization and unstable angina (UA). Patients with 6-MWT>300 m, we found 42.8% experienced CE. The result of Chi-Square test showed there was no significant correlation between 6MWT and CE, (p=0.252). In addition, CHF patients with EF<30%, 71.5% had CE (rehospitalization and UA), CHF patients with EF≥30% only 21.7% experienced CE. The result of Chi-Square test showed there was significant correlation between EF and CE (p=0.012).

**Conclusions:** There was no significant correlation between distance in 6MWT to cardiovascular events and there was significant correlation between EF and CE.

### Biography

Starry Homenta Rampengan has completed his PhD and Post-doctoral studies from University of Indonesia. He is Director of Jade Cardiovascular Clinic in North Sulawesi, Indonesia and Consultant Cardiologist, Interventionist at Siloam Hospital Manado and Kandou Hospital Manado, North Sulawesi, Indonesia. He has published more than 20 papers in journals.

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