Acta Cardiologia Indonesiana (Vol. 3 No. 1) 2017 [supplement]: S22

Association between Blood Pressure and 6 Minutes Walk Distance on Elderly Pilgrims

Hapsito MT[1*], Hendrawati[1], Kurniawati V[1], Tjahjono CT[2]
[1]Residents of Cardiology and Vascular Medicine, Faculty of Medicine
Universitas Brawijaya – Dr. Saiful Anwar Hospital, Malang, Indonesia
[2]Supervisor of Preventive and Rehabilitation Division,
Department of Cardiology and Vascular Medicine, Faculty of Medicine
Universitas Brawijaya – Dr. Saiful Anwar Hospital, Malang, Indonesia
*corresponding author: hapsito@gmail.com

Abstract

Introduction: Hypertension as one of the cardiovascular disease risk factors was known to be cause of morbidity and mortality, the other was elderly. Escalation of both risk factors occurs simultaneously and coherently. There were lots of pilgrims die because of suffering diseases since from homeland especially hypertension, and compelling their physical activity over their limits. 6 Minutes Walk Test has benefits as early screening to assess response to therapy, prognosis and single measurement of cardiopulmonary status. We aimed to find association between blood pressure and the 6 Minutes Walk Distance on elderly pilgrims.
Methods and results: A Cross-sectional study is carried out at Prevention and Rehabilitation Division Saiful Anwar Hospital Malang on July 2017 with 83 eligible elderly pilgrims aged above 60 years. Fifty six (67,5%) subjects had hypertension with mean of six minutes walk distance was 354,5 meters, and 27 (32,5%) subjects did not have hypertension with mean of six minutes walk distance was 401,7 meters. Mann-Whitney test showed significant difference regarding mean of six minute walk distance between hypertensive pilgrims with non hypertensive pilgrims (p=0,027). With Spearman test, there was no correlation between systolic blood pressure with 6 Minutes Walk Distance, and there was correlation between diastolic blood pressure with 6 Minutes Walk Distance with correlation coefficient -0,258 (p=0,018).
Conclusion: Hypertensive pilgrims have lower 6 Minutes Walk Distance compared with non hypertensive pilgrims. Higher diastolic blood pressure causing lower 6 Minutes Walk Distance. There was no association between systolic blood pressure with 6 Minutes Walk Distance. Controlling blood pressure, especially diastolic blood pressure can be used to reduce morbidity and mortality rates on elderly pilgrims.

Keywords : Blood pressure; Pilgrims; Elderly; 6 minute walk distance