

## ABSTRACT

Elderly is a special group of patients with a decrease in physiological and psychosocial functions where these conditions increase the incidence of degenerative diseases such as hypertension, diabetes mellitus, cardiovascular disorders, sensory and neurological disorders, so that the consumption needs of drugs increase to improve the quality of life of the elderly, especially antihypertensive use. Decreased physiological function and comorbid disease make elderly as a high potential group of falls that can worsen the quality of life of the elderly, increased morbidity and mortality. This study aims to analyze the relationship between antihypertensive use which represent by the amount of antihypertensive and duration of antihypertensive with timed up and go test (TUG) as a risk approach to fall in the elderly in the outpatient unit of RSUP Dr. Sardjito Yogyakarta.

Data collection was carried out prospective cross-sectionally in 86 elderly patients at Geriatric Polyclinic of RSUP. Dr. Sardjito Yogyakarta from 30<sup>th</sup> April to 20<sup>th</sup> July 2018. Therapeutic analysis was sourced from medical record data, and the risk of falls was measured by the TUG test. Analysis of the relationship between antihypertensive therapy (number and duration of therapy) to the TUG test with Pearson correlation analysis. And multivariate analysis was conducted to determine the relationship of independent variables (number and duration of therapy antihypertensive) to the dependent variable (TUG test) by considering confounding variables (age, sex, body mass index, history of falls, blood pressure, living alone, comorbid diseases, and use of other drug therapies) using multiple linear regression analysis.

The description of the risk of falls in elderly patients at the outpatient polyclinic is indicated by the average TUG test score was 13.16 seconds showing the elderly in Dr. RSUP outpatient. Sardjito on average has good mobility. Bivariate analysis tests showed that the amount of antihypertensive and duration of antihypertensive therapy did not significantly affect the risk of falls in the elderly ( $p > 0,05$ ), and multivariate analysis between independent variables and confounding variables to the TUG test showed the variables affecting the TUG test were age and sex with significance of 0,000 and 0.001.

**Keyword: antihypertensives, timed up and go test (TUGT), risk of falls, elderly**

## INTISARI

Lanjut usia (lansia) merupakan kelompok pasien khusus dengan penurunan fungsi fisiologis dan psikososial dimana kondisi tersebut meningkatkan kejadian penyakit degeneratif seperti hipertensi, diabetes mellitus, gangguan kardiovaskular, gangguan sensori dan neurologis, sehingga kebutuhan konsumsi obat – obatan pun meningkat untuk meningkatkan kualitas hidup lansia, terutama penggunaan antihipertensi. Penurunan fungsi fisiologis serta penyakit komorbid membuat lansia merupakan kelompok berpotensi tinggi terjadinya jatuh yang dapat memperburuk kualitas hidup lansia, meningkatkan morbiditas dan mortalitas. Penelitian ini bertujuan untuk menganalisis hubungan antara penggunaan antihipertensi berupa jumlah terapi antihipertensi dan lama terapi antihipertensi dengan *timed up and go test* (TUG) sebagai pendekatan risiko jatuh pada lansia di unit rawat jalan RSUP. Dr. Sardjito Yogyakarta.

Pengambilan data dilakukan secara prospektif *cross-sectional* pada 86 pasien lansia rawat jalan di RSUP. Dr. Sardjito Yogyakarta pada 30 April hingga 20 Juli 2018. Data terapi antihipertensi bersumber dari data rekam medik, dan risiko jatuh diukur dengan tes TUG. Analisis hubungan antara terapi antihipertensi (jumlah dan lama terapi) terhadap nilai tes TUG dengan analisis korelasi pearson. Serta dilakukan analisis multivariat untuk mengetahui hubungan variabel bebas (jumlah dan lama terapi antihipertensi) terhadap variabel terikat (tes TUG) dengan mempertimbangkan variabel pengganggu (usia, jenis kelamin, indeks massa tubuh, tekanan darah, riwayat jatuh, tinggal sendiri, penyakit komorbid, dan terapi obat lain) menggunakan analisis regresi linear berganda.

Gambaran risiko jatuh pada pasien lansia di poliklinik rawat jalan ditunjukkan dengan nilai rerata tes TUG sebesar  $13,1 \pm 6$  detik menunjukkan lansia di rawat jalan RSUP Dr. Sardjito rata – rata memiliki mobilitas baik. Uji analisis bivariat menunjukkan bahwa jumlah terapi antihipertensi maupun lama penggunaan antihipertensi tidak mempengaruhi risiko jatuh pada lansia secara signifikan ( $p > 0,05$ ), dan analisis multivariat antar variabel bebas dan pengganggu terhadap tes TUG menunjukkan variabel yang mempengaruhi tes TUG adalah usia dan jenis kelamin dengan signifikansi masing – masing 0,000 dan 0,001.

**Kata kunci:** Antihipertensi, *Timed up and Go Test* (TUGT), Risiko Jatuh, Lansia

