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**EVOLIUCINĖ MEDICINA:
ŽMOGAUS RAIDOS PERSPEKTYVOS IR SVEIKATA
BESIKEIČIANČIOJE APLINKOJE**

**EVOLUTIONARY MEDICINE:
PERSPECTIVES ON HUMAN DEVELOPMENT AND HEALTH
CONSEQUENCES IN A CHANGING ENVIRONMENT**

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UNRECOGNIZED BURDEN OF REDUCED KIDNEY FUNCTION AND ELEVATED BLOOD PRESSURE IN THE COMMUNITY: A WORLD KIDNEY DAY SCREENING INITIATIVE IN LITHUANIA

Mindaugas SMETANINAS¹, Roberta KERPYTE², Giedre ZULPAITE³, Laurynas RIMSEVICIUS³, Kristina PETRULIENE⁴, Marius MIGLINAS³

¹Faculty of Medicine, Vilnius University, Vilnius, Lithuania

²Faculty of Medicine, Lithuanian University of Health Sciences, Kaunas, Lithuania

³Clinic of Gastroenterology, Nephro-Urology and Surgery, Institute of Clinical Medicine, Faculty of Medicine, Vilnius University, Vilnius, Lithuania

⁴Department of Nephrology, Faculty of Medicine, Lithuanian University of Health Sciences, Kaunas, Lithuania

Contact e-mail: mindaugas.smetaninas@mf.vu.lt

Background and Aim: Chronic kidney disease (CKD) is common yet often underdiagnosed and data on its burden in the Lithuanian general population are scarce. We assessed the prevalence of renal and cardiovascular abnormalities detected during a World Kidney Day community screening initiative and identified factors associated with positive findings.

Materials and Methods: In this cross-sectional study, adult passers-by were screened in shopping centres in Kaunas and Vilnius. Serum creatinine, blood pressure (BP), and self-reported diabetes, hypertension, CKD were recorded; estimated glomerular filtration rate (eGFR) was calculated using the CKD-EPI 2021 equation. A positive result was defined as reduced eGFR (below 60 mL/min/1.73 m²) and/or elevated BP (systolic 140 mm Hg or higher and/or diastolic 90 mm Hg or higher). Associations were assessed by multivariable logistic regression.

Results: Of 377 participants (72.4% women; median age 64 years), 7.2% had reduced eGFR and 58.0% had elevated BP; 60.7% were screen-positive. Among those reporting none of the three conditions, 3.6% had reduced eGFR and 46.4% had elevated BP. Older age (odds ratio [OR] 1.49 per 10 years; 95% confidence interval [CI] 1.27 to 1.76), male sex (OR 2.16; 95% CI 1.26 to 3.76), and self-reported hypertension (OR 1.95; 95% CI 1.17 to 3.27) were independently associated with a positive result; diabetes was not. Overall, 60.2% required further referral.

Conclusions: Community-based screening revealed a high burden of elevated BP and reduced eGFR, including among individuals without known chronic disease. Older age, male sex, and hypertension predicted positive findings, and over half required referral, supporting community screening for early detection and timely referral.

Keywords: chronic kidney disease, hypertension, screening, early diagnosis