Mortality rate related to peripheral arterial disease: A retrospective analysis of epidemiological data (years 2008-2019)

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Abstract

Background and aims

Peripheral arterial disease (PAD) is one of the most prevalent cardiovascular diseases with more than 230 million people being affected worldwide. As highlighted by the recent European Society of Cardiology guidelines, data on the epidemiology of PAD is urgently needed.

Methods and results

We accessed the vital registration data of the Veneto region (Northern Italy, approximately five millions inhabitants) covering the period 2008-2019. We computed annual age-standardized rates for PAD reported as the underlying cause of death (UCOD) or as one of multiple causes of death (MCOD). Age-adjusted odds ratios (OR) served to study the association between PAD and cardiovascular comorbidities. The age-standardized mortality rate for PAD as MCOD slightly declined from 19.6 to 17.8 in men and from 10.8 to 9.1 deaths per 100,000 population-years in women. The age-standardized PAD-specific mortality rate (UCOD) remained stable: 3.1 to 3.7 per 100,000 person-years in women (Average Annual Percent Change 1.3, 95% CI -0.8; 3.4%) and 4.4 to 4.3 per 100,000 person-years (Average Annual Percent Change -0.2, 95% CI -3.6; 3.4%) in men. PAD contributed to 1.6% of all deaths recorded in the region. Ischemic heart disease, diabetes mellitus and neoplasms were the most prevalent UCOD among PAD patients. PAD was associated with diabetes mellitus (OR 3.79, 95%CI 3.55-4.06) and chronic kidney diseases (OR 2.73, 95%CI 2.51-2.97) in men, and with atrial fibrillation (OR 2.26, 95%CI 2.10-2.44) in women.

Conclusion

PAD remains a substantial cause of death in the general population of this high-income region of Western Europe with marked sex-specific differences.

Keywords: Atherosclerosis; Cardiovascular disease; Intermittent claudication; Mortality; Peripheral arterial disease.

FULL TEXT

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