

Abstract

Adherence to the WCRF/AICR Cancer Prevention Recommendations and All-Cause Mortality among Cancer Survivors from the Moli-sani Study Cohort [†]

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Abstract: Background and objectives: The guidelines provided by the World Cancer Research Fund/American Institute of Cancer Research (WCRF/AICR) aim to reduce the risk of developing cancers worldwide. The WCRF/AICR advises cancer survivors to follow the same recommendations for cancer primary prevention. These recommendations have been operationalized into a quantitative index based on a total of seven or eight healthy lifestyles; the points-based system allows for scoring a full point and, in some cases, partially meeting a recommendation. Evidence of the usefulness of the WCRF/AICR recommendations in populations different from those in the US is scarce. The aim of the present study was to assess whether compliance with the 2018 WCRF/AICR recommendations for cancer prevention is related to all-cause mortality among cancer survivors recruited in the Moli-sani Study cohort in Italy (2005–2010). Methods: A longitudinal analysis of 786 participants (59.7% women) with a history of cancer at study entry were analyzed. The 2018 WCRF/AICR score included seven components: body weight, physical activity, plant-based foods, fast foods, red and processed meat, sugar-sweetened beverages, and alcohol; the optional breastfeeding component was excluded. The final score ranged between 0 and 7 points, with higher values reflecting greater alignment with the WCRF/AICR recommendations. Multivariable Cox proportional hazard models adjusted to account for sociodemographic factors and major health conditions were fitted for estimate hazard ratios (HRs) and 95% confidence intervals (CIs) for all-cause mortality. Results: The sample consisted of cancer survivors with an average age (SD) of 62.7 years old (11.7). Over a median follow-up of 11.8 years, a total of 220 deaths were registered. The median WCRF/AICR score was $4.6 \pm \text{SD } 0.9$. In multivariable-adjusted analyses, the risk of mortality was lower for participants who scored >5 points ($\text{HR} = 0.54; 0.37\text{--}0.78; p \text{ value} = 0.0010$) compared to those who scored 0–4 points. Each one-point increment in the WCRF/AICR score was associated with a 22% decreased risk of all-cause mortality ($\text{HR} = 0.78; 0.66\text{--}0.90; p \text{ value} = 0.0012$). Discussion: Higher compliance with the WCRF/AICR recommendations regarding diet, physical activity, and body weight was associated with lower all-cause mortality risk among cancer survivors. These findings suggest that cancer survivors should be encouraged to increase their adherence to the WCRF/AICR recommendations.

Keywords: WCRF/AICR recommendations; cancer prevention; mortality; cancer survivors



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