36th World Cancer Conference

&

3rd Edition of International Conference on Colorectal Cancer

October 11-13, 2018   Zurich, Switzerland

Associations of pre-and post-diagnosis domain-specific physical activity and television viewing time with excess mortality in colorectal cancer survivors: The Melbourne collaborative cohort study

Shahid Mahmood[1,2], **Dallas R English**[1,2], **Robert J MacInnis**[1,2], **Amalia Karahalios**[1], **Harindra Jayasakera**[1,2,7], **Andrew Haydon**[8], **Neville Owen**[1,3,4,5,6], **Roger L Milne**[1,2], **Graham G Giles**[1,2] and **Brigid M Lynch**[1,2]

[1]University of Melbourne, Australia
[2]Cancer Council Victoria, Australia
[3]Baker Heart and Diabetes Institute, Australia
[4]University of Queensland, Australia
[5]Monash University, Australia
[6]Swinburne University of Technology, Australia
[7]La Trobe University, Australia
[8]Alfred Hospital, Australia

Background: Studies have shown that recreational physical activity undertaken before or after colorectal cancer (CRC) diagnosis is associated with reduced mortality among CRC survivors. The survival benefits associated with physical activity in other settings (domains), such as transport and household, remain uncertain. In older adults (who are at greatest risk of CRC), overall physical activity often declines, particularly in the recreation and occupation settings and they accrue most of their moderate-intensity physical activity through walking (transport) and household activity. Similarly, evidence is inconclusive for relationship of sedentary behaviour and CRC survival. This study examines the associations of pre-and post-diagnosis domain specific physical activity and television viewing time with relative risk of excess death in colorectal cancer survivors.

Methods: We followed 569 (activity assessed pre-diagnosis) and 426 (activity assessed post-diagnosis) colorectal cancer (CRC) survivors in the Melbourne Collaborative Cohort Study. Physical activity in recreation, transport and household domains and plus television viewing time were self-reported at Wave 2. Poisson regression within the framework of a generalized linear model was used to estimate excess mortality rate ratios (EMRR) and 95% confidence intervals (CIs).

Results: A total of 208 and 153 deaths were observed among CRC survivors in pre- and post-diagnosis samples, respectively. The adjusted EMRRs for the highest versus the lowest categories of pre-diagnosis physical activity were 0.83 (95% CI: 0.42-1.64; p trend=0.61) for recreational activity; 0.57 (95% CI: 0.31-1.07; p trend=0.09) for transport activity; and 0.80 (95% CI: 0.46-1.39; p trend=0.11) for household activity. Watching TV for ≥4 versus <2 hours/day before CRC diagnosis was associated with 25% higher excess mortality in these survivors (95% CI: 0.67-2.32; p trend=0.26). The adjusted EMRRs for post-diagnosis physical activity were 0.67 (95% CI: 0.22-2.01; p trend=0.82) for recreation; 0.57 (95% CI: 0.31-1.07; p trend=0.86) for transport and 0.32 (95% CI: 0.13-0.81; p trend=0.04) for the household domain. We observed 38% higher excess mortality among CRC survivors watching TV≥4 versus <2 hours/day after diagnosis (95% CI: 0.47-4.02; p trend=0.41).

Conclusion: Higher levels of physical activity in recreation, transport and household before and after diagnosis improve survival among CRC patients. An active lifestyle during middle and older age may help those later diagnosed with cancer to physically withstand disease and treatment-related effects, and thus extend overall survival.

mahmoods@student.unimelb.edu.au

Archives in Cancer Research
ISSN: 2254-6081

World Cancer 2018 &
Colorectal Cancer 2018
October 11-13, 2018

Volume 6

Page 97