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Milk and dairy product consumption and the risk of developing bladder cancer

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Background: Controversial results between milk and dairy product consumption and Bladder Cancer (BC) have been shown in various sites of epidemiological studies. This research aims to increase the understanding of the influences between milk and dairy product consumption and BC risk by bringing together the world's data on this topic.

Methods: In total, 14 cohort studies, included in the Bladder Cancer Epidemiology and Nutritional Determinants (BLEND) study, comprising data of 3,874 BC cases and 569,956 non-cases were eligible for inclusion. The potential association between milk and dairy product consumption and the BC risk was investigated by performing a multilevel mixed effect of logistic regression model fitted for random effects by study centers corrected for relevant factors.

Results: Preliminary results show after correction for gender, age and smoking, a strong inverse association between total dairy product consumption and the BC risk (RR highest vs., lowest tertile: 0.51, 95% CI:0.47-0.57, p trend<0.001). A similar inverse association was found when analyzing the intake of cream, yoghurt and cheese separately. These significant inverse associations however, were only observed among smokers, suggesting a strong interaction between dairy product consumption and smoking. For liquid milk, an increased BC risk was found (RR comparing ≤ 1 cup (250 ml) vs. 2-3 cups per day: 1.20, 95% CI:1.02-1.43, p trend = 0.52).

Conclusions: We found evidence that dairy product consumption was associated with a decreased BC risk. Associations were significant among smokers. In addition, we showed an increased BC risk for liquid milk consumption.

Biography

Anke Wesselius has a PhD in Genetic Epidemiology and a Doctoral degree in Biomedical Science with two majors in epidemiology and pathobiology. Currently, she is working as an Assistant Professor at the Department of Complex Genetics at Maastricht University. Here, she leads the research line nutritional and cancer epidemiology.

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