



## 191 - INTAKE OF DIETARY (POLY)PHENOLS AND RISK OF LYMPHOID NEOPLASMS IN THE EPIC STUDY

E. Almanza Aguilera, D. Guananga Álvarez, Y. Benavente, R. Zamora Ros, D. Casabonne, EPIC Study Collaborators

Unit of Nutrition and Cancer, Cancer Epidemiology Research Program, Institut d'Investigació Biomèdica de Bellvitge (IDIBELL), Catalan Institute of Oncology (ICO); Department of Life Sciences, Food and Nutrition Science, Chalmers University of Technology; Unit of Infections and Cancer, Cancer Epidemiology Research Programme, IDIBELL, ICO; Department of Preventive Medicine and Epidemiology, Hospital Universitari Vall d'Hebron, Universitat Autònoma de Barcelona; Centro de Investigación Biomédica en Red de Epidemiología y Salud Pública (CIBERESP).

### Resumen

**Background/Objectives:** The etiology of lymphoid neoplasms (LN) is not fully understood and evidence regarding the potential role of dietary factors, in particular (poly)phenols, in LN development is still scarce.

**Methods:** We explored the associations between the intake of (poly)phenol (total and by classes and subclasses) and the risk of developing LN, focusing on overall and common subtypes within the EPIC cohort, by utilizing multivariable-adjusted Cox proportional hazards models.

**Results:** Over an average follow-up period of 14 years, there were 2,394 new LN cases identified among a total of 367,463 individuals. We found no significant associations between the total intake of (poly)phenols, flavonoids, and phenolic acids and the risk of developing LN. The intake of total (poly)phenols, phenolic acid, and hydroxycinnamic acid showed a positive relationship with the risk of developing Hodgkin lymphoma [HRlog<sub>2</sub> = 2.56 (95% confidence interval: 1.27-5.16); 1.81 (1.14-2.87); and 1.48 (1.03-2.12), respectively]. On the other hand, the intake of isoflavones was associated with a lower risk of overall LN [HRlog<sub>2</sub> = 0.96 (0.93-0.99)], and non-Hodgkin lymphoma [HRlog<sub>2</sub> = 0.95 (0.92-0.99)] and mature B-cell lymphoma [HRlog<sub>2</sub> = 0.96 (0.92-0.99)]. Additionally, a higher intake of flavones correlated with a reduced risk of multiple myeloma/plasma cell neoplasm [HRlog<sub>2</sub> = 0.75 (0.60-0.95)].

**Conclusions/Recommendations:** Habitual intake of isoflavones might lower the risk of developing LN, overall and certain subtypes. In contrast, phenolic acids, especially hydroxycinnamic acids, could raise the risk of Hodgkin lymphoma.

**Funding:** Instituto de Salud Carlos III-co-funded by FEDER funds/European Regional Development Fund - a way to build Europe (CIBERESP CB06/02/0073, PI20/00288). Secretariat for Universities and Research of the Ministry of Business and Knowledge of the Government of Catalonia (2021SGR01354). The coordination of EPIC is financially supported by the International Agency for Research on Cancer and by the Department of Epidemiology and Biostatistics, School of Public Health, and Imperial College London which has additional infrastructure support provided by the NIHR Imperial Biomedical Research Centre.