

DIABETES AND RISK OF NON-HODGKIN LYMPHOMA: A CASE-CONTROL STUDY

Lorenza Scotti¹, Alessandra Tavani¹, Cristina Bosetti¹, Luigino Dal Maso², Renato Talamini², Maurizio Montella³, Silvia Franceschi⁴, and Carlo La Vecchia^{1,5}

¹Istituto di Ricerche Farmacologiche Mario Negri, Milan; ²Centro di Riferimento Oncologico, Aviano (Pordenone); ³Istituto Tumori "Fondazione Pascale", Naples, Italy; ⁴International Agency for Research on Cancer, Lyon, France; ⁵Istituto di Statistica Medica e Biometria, Università degli Studi di Milano, Milan, Italy

Aims and background: We investigated the relation between diabetes and the risk of non-Hodgkin lymphoma, as epidemiological results are controversial and diabetes has been related to the risk of several neoplasms.

Patients and methods: We analyzed the combined dataset of two Italian case-control studies conducted in 1985-1997 and 1999-2002. Cases were 671 patients, aged <85 years, with incident, histologically confirmed non-Hodgkin lymphoma, and controls were 1799 patients admitted to hospitals for acute non-neoplastic conditions. Odds ratios were estimated using unconditional multiple logistic regression models including

terms for age, center, sex, residence and educational level. **Results:** No material association between diabetes and non-Hodgkin lymphoma risk was observed, with an odds ratio of 1.12 (95% confidence intervals, 0.70-1.77). No association was found in relation to age at first diagnosis of diabetes, years since diagnosis, or in younger and older subjects at diagnosis of non-Hodgkin lymphoma.

Conclusions: The results of the study allow to exclude a strong association between diabetes and non-Hodgkin lymphoma, although the small number of cases with diabetes leaves open the possibility of a moderate direct relation.

Key words: case-control studies, diabetes, non-Hodgkin lymphoma, risk factors.

Acknowledgments: This work was conducted with the contribution of the Italian Association for Cancer Research, the Italian League Against Cancer and the Italian Ministry of Education (PRIN 2005).

Correspondence to: Alessandra Tavani, ScD Dipartimento di Epidemiologia Istituto di Ricerche Farmacologiche "Mario Negri", Via Eritrea 62, 20157 Milan, Italy. Tel +39-02-39014460; fax +39-02-39001916; e-mail tavani@marionegri.it

Received July 10, 2006; accepted September 27, 2006.