ADA, ACS Spotlight Diabetes-Cancer Links

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FROM DIABETES CARE

A joint consensus statement from the American Diabetes Association and the American Cancer Society reviews the current state of science regarding the complex relationship between diabetes and cancer.

Epidemiologic evidence suggests that people with diabetes—type 2 in particular—are at increased risk for cancer. The reasons are poorly understood, but may include risk factors common to both disorders, diabetes medications, and possible direct causal links.

The ADA and the ACS convened a consensus development conference in December to examine these links. The writing group independently developed a statement that solely represents the positions of the nine panel members and does not reflect official positions of either sponsoring organization (Diabetes Care 2010;33:1674-85).

The panel, chaired by Dr. Edward Giovannucci of Harvard School of Public Health, Boston, recommended that diabetes patients be strongly advised to undergo appropriate cancer screenings.

The statement was organized around answers to four basic questions:

► **Is there a meaningful association between diabetes and cancer incidence or prognosis?** Cancer and diabetes are diagnosed in the same individual more frequently than would be expected by chance, even after adjustment for age. The association appears to be limited to certain types of cancer, while other cancers appear to be less common among people with diabetes. Type 2 diabetes is associated with an increased risk for cancers of the liver, pancreas, endometrium, colon/rectum, breast, and bladder, but with a reduced risk of prostate cancer. For some other cancer sites there appears to be no association.

► **What factors are common to both disorders?** The association may be due in part to shared risk factors such as aging, obesity, diet, and physical inactivity. Smoking appears to be an independent risk factor for the development of diabetes and diabetes complications, in addition to cancer. Evidence for the role of alcohol is mixed. Even moderate alcohol consumption increases the risk for certain types of cancer and excess alcohol consumption is also a risk factor for diabetes. But moderate alcohol consumption is linked with a reduced incidence of diabetes.

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DR. GIOVANNUCCI

► **What are the possible biologic links between diabetes and cancer risk?** The document provides detailed summaries of the evidence pertaining to the potential roles of the insulin/insulin-like growth factor receptor axis, hyperglycemia, hyperinsulinemia, and inflammatory cytokines/inflammation.

► **Do diabetes treatments influence cancer risk or cancer prognosis?** The evidence for specific drugs affecting cancer risk is limited, and observed associations may have been confounded by indications for specific drugs, effects on other cancer risk factors, and the complex progressive nature of hyperglycemia and pharmacotherapy in type 2 diabetes. Early evidence suggests that metformin is associated with a lower risk of cancer and that some exogenously administered insulin is associated with an increased cancer risk. Further research is needed to clarify these issues and evaluate if insulin glargine is more strongly associated with cancer risk, compared with other insulins.

The statement also highlights numerous remaining research questions. ■

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