The Complex Dual Diagnosis of Diabetes and Cancer

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Diabetes and cancer are two of the top three killers in the United States. As the number of people surviving cancer increases, more patients will be living with both cancer and diabetes. This integrative review of the literature will provide an overview of diabetes, cancer, and the complex interactions between the two. A literature search was conducted and three main areas were identified that warrant additional discussion: the relationship between glucocorticoids and hyperglycemia, glucose control in the management of diabetes in patients with cancer, and an increased risk of certain cancers with the comorbid condition of diabetes. The hope is that, through additional research, evidence-based practice guidelines can be developed to direct the care of these challenging comorbid conditions. To provide holistic care to patients, diabetes and cancer management must be incorporated into healthcare curricula and should be an essential part of clinical diabetes educator certification.

At a Glance
- The dual diagnoses of diabetes and cancer are complex for patients and providers.
- Cancer treatments can influence control of diabetes.
- Healthcare education curricula must include more information on the relationship between diabetes and cancer.

Diabetes

Diabetes is a complex disease with multiple pathologic components and is an epidemic in the United States. An estimated 8% of the U.S. population (or about 25.8 million people) have diabetes. According to the American Diabetes Association (2018), diabetes affects more than 30 million Americans, or 1 in 11 adults. It is the seventh leading cause of death in the United States. Diabetes is a chronic condition that affects the body’s ability to use and store energy from food. It causes high blood sugar levels over time, which can damage blood vessels, nerves, eyes, kidneys, and other organs. There are two main types of diabetes: type 1 and type 2. Type 1 diabetes is an autoimmune disease in which the body’s immune system destroys insulin-producing beta cells in the pancreas. Type 2 diabetes is more common and occurs when the body becomes less sensitive to insulin, requiring more insulin to control blood sugar levels. Both types of diabetes can be managed with lifestyle changes and medications.

Cancer

Cancer is a group of diseases characterized by the growth of abnormal cells in the body. Cancer cells divide and grow uncontrollably, forming tumors that can invade and destroy normal tissues and organs. Cancer can start in almost any organ or tissue in the body, and it can spread to other parts of the body through the bloodstream or lymphatic system. There are several types of cancer, including breast cancer, lung cancer, colorectal cancer, prostate cancer, and melanoma. Cancer can be caused by a variety of factors, including smoking, exposure to radiation or certain chemicals, and a family history of cancer.

The dual diagnoses of diabetes and cancer are complex for patients and providers. Cancer treatments can influence control of diabetes. Healthcare education curricula must include more information on the relationship between diabetes and cancer.