Seizures have been recognized for more than a century as a symptom of primary and secondary intracerebral tumors (Beaumont & Whittle, 2000). Seizures can occur at any point during the course of the disease and even have been reported to predate the diagnosis of cancer by many years (Beaumont & Whittle; Goldring, Rich, & Picker, 1986). When seizures occur in patients with cancer, the disorder often is referred to as “tumor-associated epilepsy,” a subtype of the classic condition of epilepsy.

Epilepsy or a seizure disorder can be defined as an intermittent derangement of the nervous system, presumably because of a sudden, excessive, disorderly discharge of cerebral neurons (Adams & Victor, 1993). Seizures occur in patients with cancer as a direct effect of the cancer on the nervous system or as a result of the metabolic impact of the cancer or cancer treatment (Gilbert & Armstrong, 1995). The consequences of a seizure occurring in patients with cancer can include worsening of neurologic dysfunction, slow recovery of a neurologic deficit, or even death (Cairncross, 1983). Therefore, a thorough search for the cause of a seizure, as well as appropriate medical management, is imperative in patients with cancer. The purpose of this article is to define and describe the etiology, pathophysiologic basis, and management of seizures in patients with cancer.