Lung cancer continues to be the leading cause of cancer death for both men and women as we conclude this century. Survival rates remain dismal at only 14% for five years. Cigarette smoking is estimated to be related to 90% of lung cancers.

The diagnostic workup for lung cancer is usually extensive and may include chest radiograph, sputum cytology, computed tomography scans, bronchoscopy, lymph node biopsy, pulmonary function studies, liver function studies, and possibly bone marrow biopsy. Four major cell types are divided into two categories: non-small-cell lung cancers and small-cell lung cancers. Squamous-cell, adenocarcinoma, and large-cell lung cancers comprise the non-small-cell lung cancers. Small-cell, sometimes called oat cell, is of the small-cell lung cancer category. The reason for identifying two distinct categories is related to cell characteristics and treatment choices.

Non-small-cell lung cancer is staged using the tumor/node/metastasis (TNM) system. The tumor size is identified and measured using diagnostic studies and/or visualization at surgery. Any nodal involvement and metastasis to sites other than the pleural tissue are ascertained also via direct visualization and/or various diagnostic studies. Small-cell lung cancer is staged using the Veterans Administration Lung Cancer Study Group system, which consists of two categories: limited stage and extensive stage. Limited stage is characterized by its being confined to the hemithorax of origin and encompassable within a "tolerable" radiation therapy port. Extensive stage is too widespread to be included within the definition of limited-stage disease. Accurate staging of lung cancer is necessary to provide optimum treatment.

Non-small-cell lung cancer is treated with surgery, radiation therapy, and chemotherapy. Early stage (stage I) is treated with surgery alone. Stages II-IV are treated with various combinations of cancer treatment modalities. Limited-stage and extensive-stage small-cell lung cancers are treated with a two- to four-drug combination of chemotherapy and radiation therapy. Clinical trials with standard chemotherapy agents and new agents, variations of doses in current regimens, surgical resection plus radiation therapy plus chemo-therapy, and new radiation therapy schedules and timing are in progress.

Nursing management considerations for the patient with lung cancer include surgical, radiation therapy, and chemotherapy nursing care. Many paraneoplastic syndromes can occur with lung cancer. Syndrome of inappropriate antidiuretic hormone secretion (SIADH), Cushing’s syndrome, hypercalcemia, peristaltic proliferation, and superior vena cava syndrome (SVCS) are complications for which nurses must assess and educate patients and families to prevent further sequelae and to help maintain an optimal quality of life. Symptom management is an important component in helping lung cancer patients deal with their illness and treatment. Nurses must assess, educate, and assist patients in coping with psychosocial issues and problem symptoms such as cough, pain, dyspnea, hemoptysis, and wheezing.

The major challenge of lung cancer for nurses is in the area of prevention and cessation education. Nurses must be aware of the physiologic, political, and cost issues associated with smoking and lung cancer so that they can become active professional, public, and patient educators in the fight against cancer.

References


Website References


What is the financial cost to our society from the use of tobacco products? <http://ourworld.compuserve.com/homepages/LungCancer/whatcost.htm>

Ms Holley is a faculty member of the Oncology Nursing Program, University of South Florida College of Nursing, Tampa, Florida. She is also a predoctoral nursing fellow at James A. Haley VA Hospital, Tampa, Florida.
E-mail: spholley@com1.med.usf.edu.