Cancer of the Larynx

Introduction

Cancer of the larynx or voice box, while not a common disease, does account for from 2 to 5 percent of all cancer cases. The outcome of this form of cancer is almost entirely dependent on how early it is discovered and treatment begun. If diagnosed early, when the cancer is commonly limited to one vocal cord, the disease can be cured. In the great majority of such cases, a normal voice will be obtained.

In the disease’s later stages, however, when the cancer has spread to other areas of the larynx and throat, treatment often involves laryngectomy, the surgical removal of the larynx.

Cancer of the larynx like other cancers, is characterized by an unchecked multiplication of cells which build up into an invasive tumor. As the tumor develops, the cancer spreads, not only to adjacent tissue areas, but to distant parts of the body as well, using the lymph ducts and blood vessels for passage. These new, related growths are called metastases and the spreading cancer is said to have metastasized. Eventually the tumors interfere with vital body functions and if left uncontrolled will kill the patient.

Those It Strikes

Several environmental or occupational factors have been linked with laryngeal cancer. Habitual smoking and heavy drinking are among the most important of these.

Cancer of the larynx occurs more frequently among city dwellers than among persons living in rural areas. The ratio of urban to rural case for laryngeal cancer is similar to that for cancer of the lung or bronchus.

Other environmental factors that have been occasionally associated with cancer of the larynx are voice strain, as experienced by singers, actors, and ministers, exposure to wood and metal dusts, and repeated inhalation of some chemical substances. The disease, keratosis, which produces wart-like
growth on the larynx, is believed to be a pre-cancerous condition and those with the disease should be examined regularly by a physician.

Diagnosis and Symptoms

An important reason for the encouraging prognosis that can be made for many cases of laryngeal cancer is the fact that symptoms usually occur at a stage of the disease when the tumor is small and localized. However, the relative mildness of most of those symptoms is often misleading and frequently the warning signs are not heeded until late.

One of the most common early symptoms of laryngeal cancer is a prolonged hoarseness. Any hoarseness lasting for more than three weeks should be investigated by a physician. Hoarseness in cancer of the larynx is a direct result of a tumor on the vocal cords, the most common early site of the disease. But often, early growths occur elsewhere on the larynx, causing such symptoms as a change in voice pitch, lump in the throat, coughing, difficulty and pain in breathing or swallowing, and even earache. In these instances, hoarseness may not develop until much later, if at all.

A relatively simple preliminary examination for laryngeal cancer can be made by the physician in his office using the laryngeal mirror. This device resembles a dentist's mirror with a long handle. A physician using this mirror can detect most tumors of the larynx. However, further direct examination under local anesthesia may be necessary. If he suspects cancer, the physician will need to take a biopsy or specimen of the suspected tumor to be examined under a microscope to confirm the presence of cancer cells. X-ray and fluoroscopic examination are also often used to determine the actual size, extent, and effect of the tumor. The discovery of the exact site of the primary and metastasizing lesions in laryngeal cancer is of great importance to the scheduling of an advisable treatment program.

Treatment

In selecting a course of treatment for laryngeal cancer, the physician's aim is to cure the cancer while preserving the maximum degree of speech.

As in most other cancers, the two main types of treatment are irradiation and surgery. Most investigators and clinicians in the field agree that irradiation is probably the best treatment for the early, confined laryngeal lesion producing a minimum of aftereffects. Surgery or a combination of surgery and radiation, is generally used for the more advanced laryngeal cancers.

It must be emphasized that the correct treatment for the individual is dictated by the particular characteristics of his case, especially the site, size, and extent of the tumor as well as the patient's general health. Collaboration between radiotherapist and surgeon is desirable to evaluate these factors and prescribe the proper program of treatment.
In two-thirds of the cases of laryngeal cancer the patient is able to retain the larynx, but again, early treatment is essential. In addition, there is a definite need for regular follow up examinations to check for recurrence or metastases. During the past 15 years there has been an upward trend in survival for cancer of the larynx patients. More than half of these live 5 years or more after diagnosis. This improvement in survival rates seems to be the result of earlier detection and more effective treatments. Over 80 percent of these patients whose cancer was detected early and treated surgically survived five years after diagnosis and nearly three out of four survived ten years.

Rehabilitation

If laryngectomy is the necessary form of treatment most patients can learn to speak again through a technique known as esophageal speech.

This "substitute" speech is produced by expelling swallowed air from the esophagus. A well-trained and practiced esophageal voice produces intelligible speech of surprisingly good quality. The method is best learned from a qualified speech therapist and often the patient will work in group sessions with others who are learning as well as with those who have already mastered this technique.

Although esophageal speech produces the best quality of voice and is the most convenient monlaryngeal speech method, there are mechanical devices available for those patients who are unable to learn it. Artificial larynxes, both mechanical and electric, and a device which attaches to the upper dental plate are among these aids which may produce an intelligible voice.

So generally successful are the means of rehabilitation that the great majority of patients who have undergone larynectomy are able to return to full employment activity and lead relatively normal lives.