



Thyroid Cancer

Thyroid cancer has become the most rapidly increasing malignancy in the United States over the past several decades. The rapid increase in incidence is, in part, a result of the more common use of ultrasound as a screening technique for evaluating people's necks, as well as some other variables that have yet to be defined. The only 2 factors in a patient's history that have been identified as potential causes for the development of this disease are the presence of a strong family history of thyroid cancer and/or exposure to significant radiation at an early age in life. There are 4 primary types of thyroid cancer that are most commonly diagnosed: papillary, follicular, medullary and anaplastic. The first 2 types are referred to as well differentiated thyroid cancer and are the most commonly diagnosed. In fact, papillary thyroid cancer is responsible for the overwhelming percentage of new cases that is leading to the increased incidence of this disease noted above. Fortunately, this form of thyroid cancer has an outstanding cure rate and, in most instances, is readily treated.

The vast majority of patients who are diagnosed with thyroid cancer do not have symptoms. In rare instances, patients with thyroid cancer present with hoarseness or swallowing difficulties when the nerve to the vocal cords or the esophagus (swallowing tube) have been affected by the tumor. The majority of patients with well differentiated thyroid cancer have primary disease that is contained within the thyroid gland. There are several things that papillary thyroid cancer does which are



very predictable. First, it is often present in multiple sites within the thyroid gland, referred to as multifocal disease. Second, it often spreads to lymph nodes that are located either in the central compartment of the neck (adjacent to the thyroid and the trachea) or in the lateral, or side compartments of the neck. Occasionally, thyroid cancer may extend outside the surface of the thyroid gland, a phenomenon known as “extrathyroidal extension”. Only rarely does this disease spread to other parts of the body. While spread to lymph nodes is often perceived as being frightening by the patient, in most instances, this is a less significant event in the case of papillary thyroid cancer with respect to the overall prognosis.

The evaluation of patients with thyroid cancer involves a confirmation that the biopsy that was performed is indeed malignant. In some instances, thyroid cancer may not be readily determined until it is removed and evaluated under the microscope. In those instances, the cytology report often is suggestive of the diagnosis, or read as *suspicious*. The rest of the evaluation involves a thorough ultrasound exam of the lateral compartments (sides) of the neck to rule out the possibility of spread to those lymph nodes. If a suspicious lymph node is identified, then often a fine needle biopsy will be performed and the results will determine whether the lymph nodes on the side of the neck will have to be removed as well. It is important to understand that the expertise of the ultrasonographer is vital to obtaining the necessary information. Dr Brett, who is a highly experienced endocrinologist and ultrasonographer, can help to ensure that suspicious lymph nodes will be identified and addressed at the initial surgery.



The treatment of the common forms of thyroid cancer always involves 2 specialists and occasionally a third. The first 2 are a thyroid surgeon and an endocrinologist. These 2 clinicians work together to establish the nature and the extent of the disease so that the optimal surgical approach can be determined. Once the surgery is completed, a final pathology report will be obtained to determine whether there is a role for radioactive iodine therapy, which is administered by the third specialist, a nuclear medicine doctor. Not all patients require radioactive iodine therapy, a decision that is usually made based on the size of the primary tumor, the appearance of certain features of the cancer that are identified under the microscope and the presence, size and number of lymph nodes with cancer. Only the rare aggressive cases of thyroid cancer may require involvement of a medical oncologist or radiation oncologist. The endocrinologist and surgeon will decide when these specialists are needed.

After the primary treatment, patients with thyroid cancer are routinely followed with blood tests and neck ultrasounds to assess cure. Sometimes additional imaging tests such as radioiodine scans, CT scans or PET scans are used as well.

Patients who have had thyroid cancer require long-term follow up by an endocrinologist.