Thyroid Cancer: The Tale of "The Good, The Bad, And The Ugly"

The thyroid gland is a butterfly-shaped organ located in the base of the neck. It is composed of two lobes connected by the isthmus. Its main function is to release hormones that control metabolism. The thyroid gland is a unique organ that gives rise to one of the most curable cancers — well-differentiated papillary and follicular thyroid cancers, and to one of the deadliest cancers — anaplastic cancer. Thyroid cancers can be subdivided into low risk ("the good"), intermediate risk ("the bad") and high risk ("the ugly").

Thyroid cancer can occur in any age group and its aggressiveness increases in older patients. Frequently, it remains asymptomatic at the early stages. Some patients notice small painless lumps in the front of the neck, called nodules. Other symptoms can include voice changes, trouble swallowing, breathing problems, cough, or throat and neck pain. Many patients discover thyroid nodules by chance during an imaging test that is being done for something else.

At the time of initial evaluation, physical examination should be performed by your physician and any unusual growth in your thyroid, neck, vocal cords or throat noted. Once a thyroid nodule is identified, thyroid ultrasound should be performed. Only about 5% of all nodules are cancerous, and it is crucial to determine which nodules require further attention and which nodules can be safely monitored. Thyroid ultrasound findings can be used to select the nodules that require biopsy.

Photo courtesy of Suny Downstate

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In the instances when a more advanced cancer is suspected, additional imaging, such as CT scan, MRI and PET scan could be requested. If biopsy is indicated, a fine needle aspiration (FNA) is performed. FNA uses a thin needle to remove a small tissue sample from a thyroid nodule. The results of the biopsy will be one of the following: benign (non-cancerous), malignant (cancerous) or indeterminate. In the case of indeterminate result, molecular testing is usually performed to determine the risk of cancer more precisely.

The primary therapy for all types of thyroid cancer is surgery. The extent of surgery depends on the type of the tumor and how far it may have spread. Thyroid lobectomy — removal of the lobe involved by cancer- is frequently sufficient for early stage cancer. A small low-risk tumor can be removed via minimally invasive video-assisted surgery, where the thyroid gland is removed through a tiny incision in the neck. Total thyroidectomy — removal of the entire thyroid gland- is usually indicated for more advanced stage thyroid cancer.

If thyroid cancer is present in the lymph nodes of the neck, lymphadenectomy is performed to remove the involved lymph nodes. Radioactive iodine (RAI) treatment may be recommended for intermediate and advanced stages to destroy all remaining thyroid cancer cells. Thyroid cancer that spreads outside of the neck is rare, but can pose a serious problem. Besides surgery and RAI, other forms of treatment, such as radiation therapy, with or without chemotherapy, are usually needed.

No matter what type of thyroid cancer you are diagnosed with, we will work with you to determine the best treatment approach. Even though the diagnosis of cancer is terrifying, the prognosis for most patients with papillary and follicular thyroid cancer is usually excellent.

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