Thyroiditis

Inflammation of the Thyroid Gland

Thyroiditis is an inflammation (not an infection) of the thyroid gland. Several types of thyroiditis exist and the treatment is different for each.

Hashimoto's Thyroiditis. **Hashimoto's Thyroiditis (also called autoimmune or chronic lymphocytic thyroiditis) is the most common type of thyroiditis.** It is named after the Japanese physician, Hakaru Hashimoto, that first described it in 1912. The thyroid gland is always enlarged, although only one side may be enlarged enough to feel. During the course of this disease, the cells of the thyroid becomes inefficient in converting iodine into thyroid hormone and "compensates" by enlarging. The radioactive iodine uptake may be paradoxically high while the patient is hypothyroid because the gland retains the ability to take-up or "trap" iodine even after it has lost its ability to produce thyroid hormone. As the disease progresses, the TSH increases since the pituitary is trying to induce the thyroid to make more hormone, the T4 falls since the thyroid can't make it, and the patient becomes hypothyroid. The sequence of events can occur over a relatively short span of a few weeks or may take several years.

- Treatment is to start thyroid hormone replacement. This prevents or corrects the hypothyroidism and it also generally keeps the gland from getting larger.

- In most cases the thyroid gland will decrease in size once thyroid hormone replacement is started.

- Thyroid antibodies are present in 95% of patients with Hashimoto's Thyroiditis and serve as a useful "marker" in identifying the disease without thyroid biopsy or surgery.

- Thyroid antibodies may remain for years after the disease has been adequately treated and the patient is on thyroid hormone replacement.

Subacute Thyroiditis. De Quervain's Thyroiditis was first described in 1904 and is **much less common than Hashimoto's Thyroiditis.** The thyroid gland generally swells rapidly and is **very painful and tender.** The gland discharges thyroid hormone into the blood and the patients become hyperthyroid; however the gland quits taking up iodine (radioactive iodine uptake is very low) and the hyperthyroidism generally resolves over the next several weeks.

- Patients frequently become ill with fever and prefer to be in bed.
- Thyroid antibodies are **not** present in the blood, but the sedimentation rate, which measures inflammation, is very high.
- Although this type of thyroiditis resembles an infection within the thyroid gland, no infectious agent has ever been identified and antibiotics are of no use.
- Treatment is usually bed rest and aspirin to reduce inflammation
- Occasionally cortisone (steroids) (to reduce inflammation) and thyroid hormone (to "rest" the thyroid gland) may be used in prolonged cases.
- Nearly all patients recover and the thyroid gland returns to normal after several weeks or months.
- A few patients will become hypothyroid once the inflammation settles down and therefore will need to stay on thyroid hormone replacement indefinitely.
- Recurrences are uncommon.

Silent Thyroiditis. Silent Thyroiditis is the third and least common type of thyroiditis. It was not recognized until the 1970's although it probably existed and was treated as Graves' Disease before that. This type of thyroiditis resembles in part Hashimoto's Thyroiditis and in part De Quervain's Thyroiditis. The blood thyroid test are high and the radioactive iodine uptake is low (like De Quervain's Thyroiditis), but there is no pain and needle biopsy resembles Hashimoto's Thyroiditis. The majority of patients have been young women following pregnancy. The disease usually needs no treatment and 80% of patients show complete recovery and return of the thyroid gland to normal after three months. Symptoms are similar to Graves' Disease except milder. The thyroid gland is only slightly enlarged and exophthalmos (development of "bug eyes") does not occur. Treatment is usually bed rest with beta blockers to control palpitations (drugs to prevent rapid heart rates). Radioactive iodine, surgery, or antithyroid medication is never needed. A few patients have become permanently hypothyroid and needed to be placed on thyroid hormone.

Thyroid Antibodies. The body normally produces antibodies to foreign substances such as bacteria; however, some people are found to have antibodies against their own thyroid tissue. A condition known as Hashimoto's Thyroiditis is associated with a high level of these thyroid antibodies in the blood. Whether the antibodies cause the disease or whether the disease causes the antibodies is not known; however, the finding of a high level of thyroid antibodies is strong evidence of this disease. Occasionally, low levels of thyroid antibodies are found with other types of thyroid disease. When Hashimoto's thyroiditis presents as a thyroid nodule rather than a diffuse goiter, the thyroid antibodies may not be present.