

# Improved thyroid function in oncological patients with Hashimoto Thyroiditis treated with Immunomodulators

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## Introduction

Hashimoto's thyroiditis is chronic autoimmune inflammation of the thyroid with lymphocytic infiltration

The destruction of the thyroid gland occurs through the action of CD8 positive killer T cells. CD4 positive helper T cells and B cells are also identified in the thyroid glands of patients with Hashimoto thyroiditis

Hashimoto's thyroiditis is the most common cause of primary of hypothyroidism  
The disease is 7 times more frequent in women.

The incidence of Hashimoto thyroiditis worldwide is estimated to be 0.3-1.5 cases per 1000 of population per year

Incidence increases with age and in patients with chromosomal disorders, including Turner's, Down, and Klinefelter's syndromes. A family history of thyroid disorders is common.

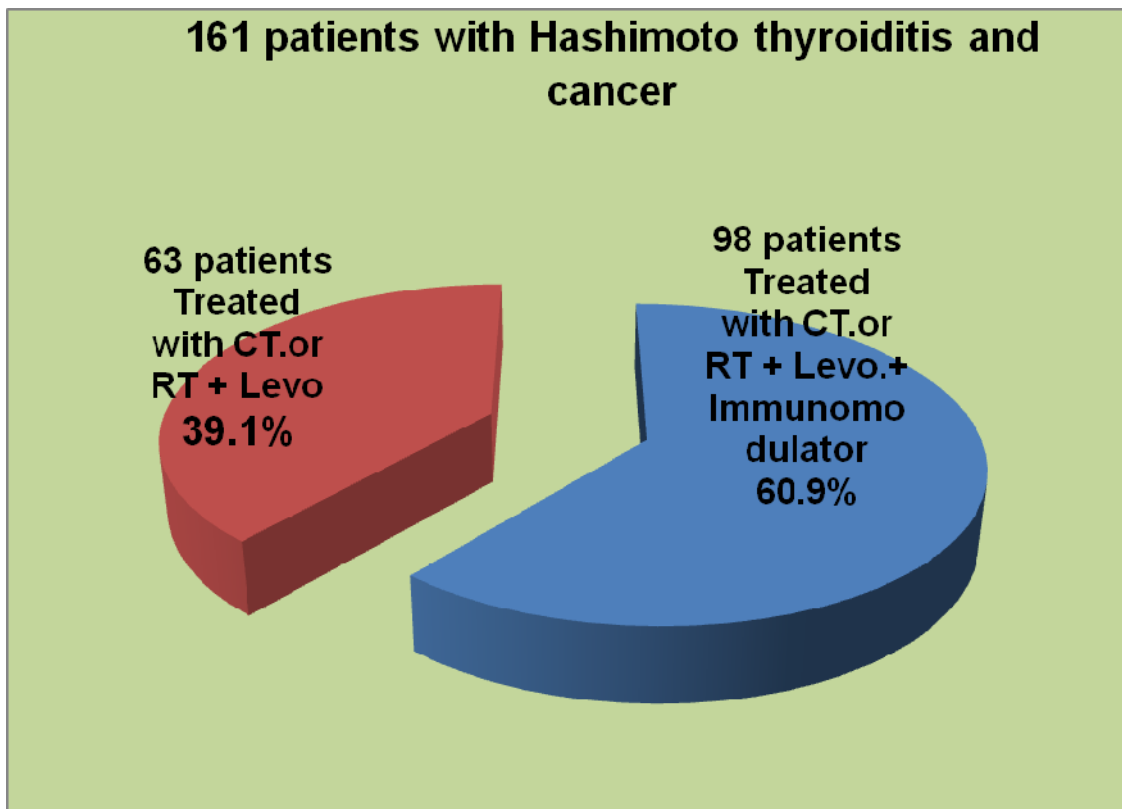
An increased incidence of cancer is seen in people with an autoimmune disease.  
The treatment of Hashimoto thyroiditis consists of replacing thyroid hormone with levothyroxine, when the patients have become hypothyroid.

**Purpose.**

The aim of the study was to evaluate the improvement in thyroid function as well as quality of life in oncological patients with Hashimoto Thyroiditis treated with Immunomodulators

**Material**

We retrospectively review in a multicentric study, 161 patients with Hashimoto thyroiditis, and different types of tumors (breast, kidney, ovarian, uterus, colorectal, thyroid, lung, pancreas, larynx, stomach, bladder, prostate, etc).  
Age range 40 to 70 years old.



98 patients were treated with (chemotherapy or radiotherapy) + levothyroxine and Immunomodulators during 6 month.

This Immunomodulators compound contains: Astragalus Ext., Zinc, Mg and Selenium.”

63 patients treated only with oncological treatment (chemotherapy or radiotherapy) + levothyroxine as a control group.

### **Method**

Thyroid function: T3.T4. TSH, TPO and TG antibodies were measured before, during and after six month treatment with Immunomodulators treatment.

Immunomodulators was administered orally sublingual at a dose of 4ml / day

In the control group the thyroid function was evaluated every four month

### **Result**

87 patients (78.5 %) treated with Immunomodulators showed increase T3, T4, and diminution of TSH, TPO and TG after 2 month of treatment.

These patients required less levothyroxine than there were taken before.

8 patients (8.16%) did not show changes in their thyroid function.

3 patients (3.06%) withdrew the treatment

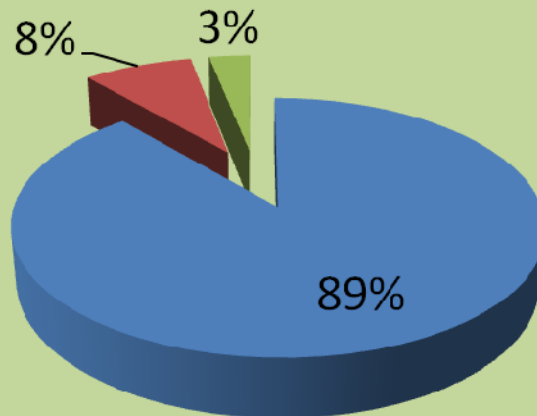
We also observed a better quality of life in these patients. (Increase WBC, RBC).

Less fatigue, dry skin, depression, Cold Intolerance,

In the control group the thyroid function as well as the antibodies did not show any changes.

## 98 Patients with Hashimoto and cancer treated with immunomodulators

- Patients improved 88.77 %
- Patients not changes 8.16 %
- Patients withdrew 3.06 %



## Laboratory results in Hashimoto thyroiditis

	Subclinic	Clinic
TSH	↑	↑
FT4	↓	↓↓
FT3	N	↓↓
TPO	↑↑	↑↑
TG	↑↑	↑↑
Coolesterol	↑	↑↑

## Hashimoto treated with immunomodulators

	Hashimoto		AFTER IMMUNOMODULATOR	
	Subclinic	Clinic	Subclinic	Clinic
<b>TSH</b>	N	↑	N	↓
<b>FT4</b>	N	↓↓	N	↑↑
<b>FT3</b>	N	↓↓	N	↑↑
<b>TPO</b>	↑↑	↑↑	↓↓	↓↓
<b>TG</b>	↑↑	↑↑	↓↓	↓↓

### Clinical implication

#### Evolution of hashimoto thyroiditis

- 1-Hashimoto disease -----Hashimoto thyroiditis ( HT)
- 2-Hashimoto disease----- other autoimmune disease LES, AR, Psoriasis,
- 3-Hashimoto disease ----- ovarian cyst, breast dysplasia, uterus fibroma
- 4-Hashimoto disease ----- malignant tumors (breast, ovarian, lung, prostate, Colorectal,)

Immunomodulators improves thyroid function in patients with Hashimoto thyroiditis

No side effect were seen in this patients

IM treatment is safe and well tolerated

In cancer patients with Hashimoto thyroiditis IM also improve, RBC, WBC, platelets and the disease free survival period.

Keywords: hashimoto thyroiditis-Immunomodulators-cancer-thyroid function

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