ORIGINAL **PROF-682**

SUB CLINICAL HVPOTHYROIDISM; SHOULD IT BE TREATED?

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ABSTRACT
Objective: To evaluate benefits of treatment in cases of sub clinical hypothyroidism. **Setting & Duration:** Mayo Hospital Lahore from May 2001 to May 2002. **Method:** Twenty patients with abnormal thyroid function test when T3, T4 were normal and TSH was raised were selected. Ten patients were put on thyroxine treatment and ten patients were given the placebo treatment. The patients were followed up at 1,2,3,6,9,12 months period. **Results:** The patients on thyroxine treatment improved clinically. Laboratory parameters also showed improvement. **Conclusions:** The patients got better on small doses of thyroxine otherwise they will progress to overt hypothyroidism.

Key Worda: Sub Clinical Hypothyroidism, Thyroxine.

INTRODUCTION

The term sub clinical hypothyroidism can be defined as a state when T3, T4 levels are normal but TSH level is high. Several other terms like compensated euthyroidism, pre-clinical hypothyroidism, decreased thyroid reserve, premyxoedema, occult hypothyroidism, mild hypothyroidism, are usually used for such a condition[1].

In this state,.reduction of thyroid activity is compensated by an increased TSH secretion to maintain a euthyroid state[2]. The elevation of TSH levels reflect the sensitivity of the hypothalamic - pituitary axis to small decrease in circulatory thyroid hor.none as the thyroid gland fails[34].The TSH levels rise above the normal limit while the free T4 level has fallen but still within the normal range. The causes are essentially the same as those of overt hypothyroidism. Some times patients of thyrotoxicosis receiving inadequate treatment can present like this. TSH may be raised due to recovery from non thyroidal illness, pulsatile TSH secretion, or assay variability. Therefore increased TSH levels should be repeated before making the diagnosis of sub-clinical hypothyroidism[1].

The onset is so insidious that the patient is only vaguely aware that anything is wrong. Mental apathy leaves the patient indifferent to his or her physical discomfort and appearance[5]. The people who see them frequently may not notice and the subtle findings may be missed by an untrained eye[1]. The presenting complaints may be variable. There can be increasing difficulty in coping up with the job or house hold work[6]. There can be many symptoms without any sing[6].

Anemia, constipation, obesity and mood changes may be the early non specific features. These features are otherwise also common in old age group especially females. So a high degree of

suspicion is needed. Lipid metabolism is disturbed and cardiac function studies are also abnormal[78910].

MATERIAL & METHODS .

This is a double blind placebo controlled study. The patients presenting to OPD Mayo Hospital were advised thyroid function tests due to different indications. Twenty patients with increased TSH level but normal T3 and T4 levels were included in the study. The history was taken with special emphasis on the following factors;

The results of lipid profile were as follows

1. Recent weight gain
2. Constipation
3. Easy fatigability
4. Increased sleeping hours
5. Menorrhagia
6. Chest pain or hypertension

Following investigations were done;

Hb%, RBC, morphology, B. sugar and Cholesterol, HDL, LDL,

S.Triglycerides, ECG and echo-cardiography.- Complete physical examination and investigations were

repeated on every visit.

RESULTS & OBSERVATIONS

Twenty patients were included in the study. All patients were female. The age group was 40-60 years.

Table-l. Indications for advising thyroid function test(n=20)

	No of Pts	% age
Post thyroidectomy	2	10
Hyperthyroidism taking neomarcazole	4	20
After l_{131} Treatment	1	5
with complaints suggestive of hypothyroidism	13	65

Major complaints of the patients were as follows;

Table-II Major presenting complaints (n=20)

	No of Pts	% age
Recent increase in weight	12	60
Menorrhagia	3	15
Increased sleepiness	7	35
Constipatio	11	55
Easy fatiguability	16	80
Angina or dyspnea	1	5
High blood pressure	3	15

The results of lipid profile were as follows

Table- III Lipid profile (n-20)

	▲	%	N	%	▼	%
Total	13	65	7	35	X	%
LDL	15	75	5	25	X	%
HDL	X	-	12	60	8	40

Then patients were given Tab-thyroxine in such a dose to keep TSH level within normal range. Ten

patients received placebc tratment. The patients receiving thyroxine tablets were studied. The results were as follows;

Table-IV. Total No of patient=10		
	No of Pts	%age
Symptomatic improvement with no change in laboratory findings	3	30
Symptomatic improvement with improved laboratory findings	5	50
No improvement	1	10
Symptoms got worse	1	10

The placebo group was followed. The results were as follows;

Table-V Total no of patients =10		
	No of Pts	% age
The symptomatic improvement with no change in laboratory findings	1	10
The symptomatic improvement with laboratory findings	1	10
No improvement	2	20
The symptoms got worse	6	60

DISCUSSION

In the absence of definite guidelines, TSH should be performed in patients ;

1. Who have persistent nonspecific complaints like recent weight gain, generalized weakness or increased sleepiness etc, especially in old females[11].
2. Fhdiation treatment of head, neck or chest.
3. Patients receiving drugs like lithium, amiodarone or iodine.
4. Patients receiving radioactive iodine or antithyroid drugs[12].
5. Patients showing high levels of antithyroid antibodies.
6. Patients after sub-total thyroidectomy
7. Follow up of such patients show that TSH may return to normal after some time. TSH may remain like that or it will increase further with low T3,T4.
8. In this study we concluded that the patients got better on small doses of thyroxine otherwise they will progress to overt hypothyroidism[1314].

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