

Role of Unani Medicine in Hyperthyroidism - A Case Report

Zikra Tahseen¹, Shahila Aazam², Muhammed Irfhan³, Sumbul⁴,
Zuha Umme Kulsum⁵

¹Research Officer, Regional Research Institute of Unani Medicine, Patna, India

²Government Unani Medical College, Chennai India

³Department of Pharmacy, Government Unani Medical college, Chennai, India

⁴Department of Obstetric and Gynaecology, National Institute of Unani Medicine, Bengaluru, India

⁵Department of Pharmacology, National Institute of Unani Medicine, Bengaluru, India

Corresponding Author: Zikra Tahseen

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ABSTRACT

Background: Hyperthyroidism is a clinical and biochemical state caused by elevated thyroid hormones T3 and T4 level in the blood. It is caused due to collection of various pathological state like Toxic Adenoma, Toxic multinodular goitre, and Graves' disease (Diffuse toxic goitre) etc., To elaborate from the perspective of Unani system of Medicine, clinical presentation of hyperthyroidism resembles abnormal temperament of bile (*Su i mizaj safrawi*) or abnormal hot substantial temperament (*Su i mizaj har māddi*).

Case presentation: The subject of the study was 37 years old male. He was diagnosed as a case of hyperthyroidism. Keeping the concept of Unani system of medicine, treatment was planned which included pharmacotherapy (*Khamira Sandal sāda and Anushdaru Sada*). Evaluation of the patient was done before and after treatment using a thyroid profile as a tool. There was significant improvement during entire period of treatment with the respect of his symptoms and thyroid profile.

Conclusion: The effect of the drugs in bringing back the temperament and humours to its normal state in function. *Khamira Sandal sāda and Anushdaru Sada* is effective in bringing the thyroid profile to its normal state. This case report has also illustrated the importance of understanding how drugs bring about change in the body and discovering the benefits of medicine in treating contemporary labelled disorders.

Keywords: Hyperthyroidism, Sue Mizaj, Unani system of medicine, case study

INTRODUCTION

Hyperthyroidism also known as thyrotoxicosis is a clinical and biochemical state caused by elevated thyroid hormones T3 and T4 level in the blood. Most of the time, T3 levels are higher than T4 levels¹. It is caused due to collection of various pathological state like Toxic Adenoma, Toxic multinodular goiter, Graves' disease (Diffuse toxic goiter). Whereas, Pituitary adenomas, Struma ovaries, HCG-secreting tumours, and other metastatic thyroid tumours are examples of causes other than thyroid gland diseases².

In Unani system of Medicine, clinical presentation of hyperthyroidism resembles abnormal temperament of bile (*Su i mizaj safrawi*) or abnormal hot substantial temperament (*Su i mizaj har māddi*). An excess of abnormal hot temperament (*hararat*) of body or any organ causes overproduction of deranged bile (*Safra muhtareqa*)^{3,4}

This deranged bile accelerates various metabolic process and increase body's ability to generate heat. The sudden temperature increase causes profuse sweating, an increase in appetite, increase the secretion and motility of Gastrointestinal

tract leading to diarrhoea, weight loss, catabolism of protein and fat leading to weakness of muscle⁵.

MATERIALS & METHODS

Case study:

Patient information

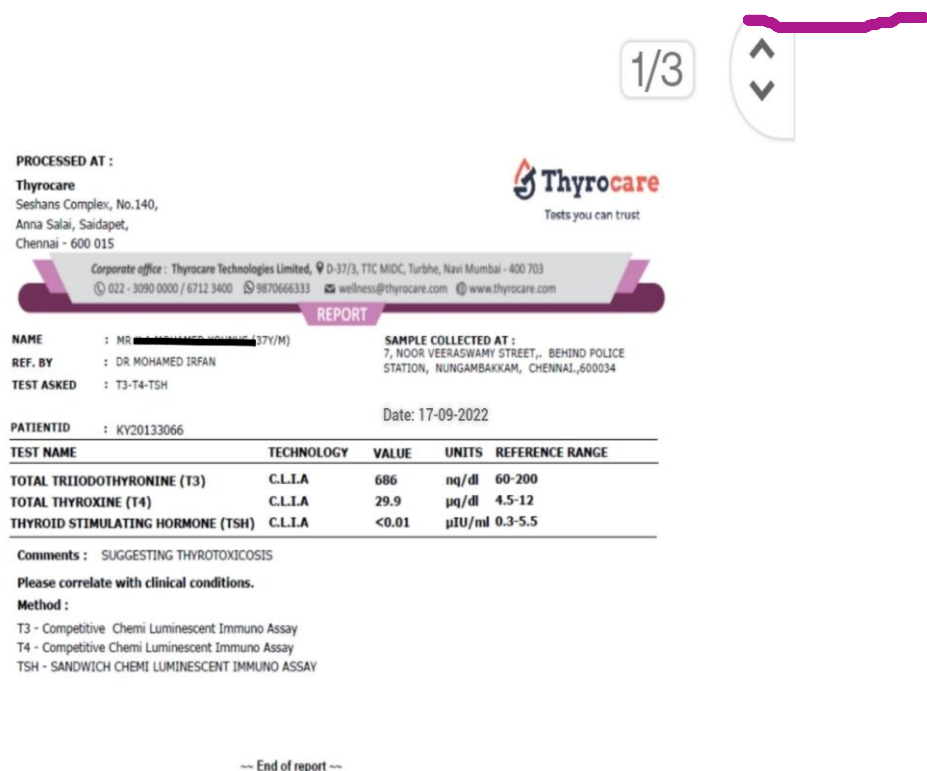
37-year-old male presented with complaints of palpitation, mild tremor, weakness and loss of weight since 8 months.

Diagnostic assessment

On examination patient had mild tremor. There was no visible swelling in the neck,

no skin rashes, no clubbing or pretibial myxoedema. On palpation there was no swelling in the neck

Patient was advised to do thyroid profile test that included T3, T4 and TSH. The result for the test dated 17th September 2022 are follow: Total triiodothyronine (T3) – 686 nq/dl by (C.L.I.A Technology); Total thyroxine (T4) – 29.9 µq/dl by (C.L.I.A Technology); Thyroid stimulating hormone (TSH) - <0.01 µIU/ml by (C.L.I.A Technology) **fig 1**



The lab finding confirmed the clinical impression and a diagnosis of hyperthyroidism was made. The patient was explained about the disease and therapeutic intervention. The patient was encouraged to ask any question and all the queries were solved up to the patient's satisfaction and informed consent was obtained

2.1.2 Therapeutic intervention:

The patient received the following medications: *Khamira Sandal*, 5 gm BD and *Anushdaru Sada*, 5gm BD. Before and after

the treatment his thyroid profile was taken and patient identity was not revealed

Contents of the given medicines are:
Khamira Sandal Sada (Hamdard formulation): *Santalum album*; *Sodium benzoate*, Sugar, Oil extract of *Rosa Damascene*⁶.(Kabeeruddin, 2010)

Anushdaru Sada (Hamdard formulation): *Emblica officinalis*; *Rosa Damascene*; *Cyperus rotundus*; *Asarum europaeum*; *Pistacia lentiscus*; *Syzygium aromaticum*; *Nardostachys jatamansi*; *Myristica fragrans*; *Elettaria cardamomum*;

*Portulaca oleraceae; Crocus sativus; Abies webbiana*⁷.(Kabeer, 2003)

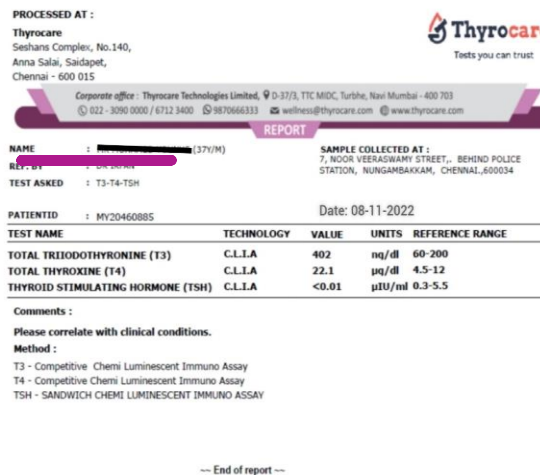
RESULT

2.1.3 Follow-up and treatment

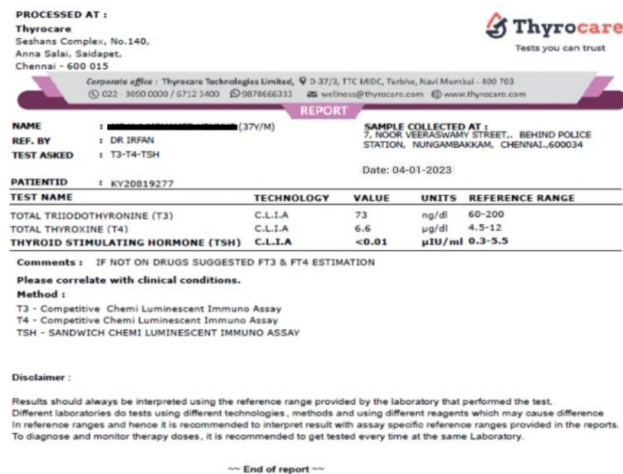
The prognosis of the patient was keenly observed throughout his treatment period. Patient was advised to come for follow up every 20 days. On 22nd day of his treatment

his symptoms were improved. He was advised to continue the medicine and do his thyroid profile and the results dated 8 November 2022 are follow

Total triiodothyronine (T3) – 402 nq/dl by (C.L.I.A Technology). Total thyroxine (T4) – 22.1 µq/dl by (C.L.I.A Technology). Thyroid-stimulating hormone (TSH) - <0.01 µIU/ml by (C.L.I.A Technology) **fig 2**



On 48th day of his treatment, his symptoms were markedly reduced and the result of thyroid profile dated 4th January 2023 are follow **fig 3**



Total triiodothyronine (T3) – 73 nq/dl by (C.L.I.A Technology). Total thyroxine (T4) – 6.6 µq/dl by (C.L.I.A Technology). Thyroid stimulating hormone (TSH) - <0.01 µIU/ml by (C.L.I.A Technology)

DISCUSSION

3. Discussion

This case study was aimed to highlight the potential of Unani drugs used in metabolic diseases. About 42 million people in India is suffering from thyroid disease⁸. As compared to hypothyroidism, hyperthyroidism is less common with more complication⁹. There are very few papers on case studies and research related to hyperthyroidism in Unani system of Medicine.

In Unani system of medicine, assessment, diagnosis and the treatment of any disease depends on temperament (*Mizāj*) and

Humour (*Akhlāt*). Discrepancy in the normal temperament and humour leads to the dis-ease condition. So the treatment centres around to bring back the temperament and humour to its normal state, for the balanced body functions. There are many conditions that are not labelled in Unani classical literature, and one such disorder is Hyperthyroidism^{10,11}. Aalam, et al., in his paper has elucidated the similarities between clinical features of Hyperthyroidism and *Su i mizaj har maddi* like weight loss (*fiqdan al-wazan*), tremors (*rasha*), Palpitation (*khafqaan*), etc.,¹³ the list is tabulated below in table 1.1.

Table1.1 Symptomatic correlation of hot temperament of Bile (*Su i mizaj har maddi*) with Hyperthyroidism.

<i>Su i mizaj har maddi</i>	Hyperthyroidism
<i>Fiqdan Al-Wazan</i>	Weight loss
<i>Adam Tahmil Al-Harara</i>	Heat intolerance
<i>Ishal</i>	Loose motion
<i>Al-Qalaq</i>	Anxiety
<i>Kasrate Irq</i>	Excessive sweating
<i>Sehar</i>	Insomnia
<i>Juhuz Al-Ain</i>	Exophthalmos
<i>Khafqaan</i>	Palpitation
<i>Nabz Sari, Mutwateer Wa Muntali</i>	High pulse volume
<i>Kasrate Atash</i>	Excessive thirst
<i>Baul Zard</i>	Yellow urine
<i>Rasha</i>	Tremors
<i>Sarate Anzal</i>	Premature ejaculation (male)
<i>Ehtebase Haiz</i>	Amenorrhoea (female)
<i>Zoafe Aam</i>	General weakness
<i>Zoafe Azlat</i>	Muscle weakness
<i>Maza Talkh</i>	Bitter taste
<i>Safravi Qai</i>	Bilious vomiting
<i>Suda</i>	Headache

Treatment is formulated on the basis of correcting the temperament and the humour, for example, hyperthyroidism being a hot (*har*) temperament disorder, the medicines that are used are of cold (*sard*) temperament. This mode of treatment is referred to as *Ilāj bi'l Didd* (Heteropathy)¹³. *Santalum album*, is of cold temperament so it helps to reduce heat in the body, it is also a heart tonic (*Muqawwi Qalb*), thereby it reduces palpitation¹⁴. It is important to understand that heart is one of the vital organs in Unani system of medicine, and any ailments specifically palpitation is a sign of weakened heart (*Zauf i qalb*). Medications such as *Santalum album*¹⁵, *Rosa damascene*¹⁶, *Nardostachys jatamansi*¹⁷, and *Cyperus rotundus*¹⁸ are

prescribed to the patient, because they help in managing palpitation and its associated symptoms like anxiety and insomnia.

Simultaneously drugs such as *Rosa damascene* help to expel excessive morbid yellow bile i.e *ghair tabayyi safra* (morbid matter) due to their purgative property. This will help in correcting the *su i mizaj har maddi* by bringing it back to its normal state¹⁹.

Another important parameter in the Unani system of medicine is the digestive system (emphasis on stomach and liver). The concept is that, if the digestive system is in healthy condition, the stomach is able to absorb the necessary nutrients and send it to the liver for the production of 4 humours i.e., yellow bile, black bile, blood and

phlegm. All the four humours in their correct quantity, quality, and ratio are responsible for regulating body function²⁰. From this perspective the following drugs were prescribed, *Elettaria cardamom*²¹, *Syzygium aromaticum*²², *Abies webbiana*²³, and *Myristica fragrans*²⁴ to help, correct and improve the digestive system. These drugs are also known to maintain the balance and the production of yellow bile from the liver. Above mentioned plan of treatment not only helped reduce the symptoms of the patient, it also simultaneously brought the body function back to normalcy. Which is in congruent with the oral reports given by the patients as we all the thyroid profile test done in the lab. This study concludes that Unani drugs have the potential to treat Hyperthyroidism. Although there are many other treatment options for hyperthyroidism, the advantage of using natural-origin drugs is that they are less toxic and highly effective. It is imperative and critical to perform a Randomized clinical trial on large scale to evaluate and validate its efficacy.

Declaration by Authors

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Conflict of Interest: The authors declare no conflict of interest.

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