

CLINICAL PRESENTATION OF HYPOTHYROIDISM

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هدف الدراسة: إن الغرض من البحث هو معرفة الأعراض المعروفة والأقل معرفة لمرض ضعف نشاط الغدة الدرقية.

طريقه الدراسة ونتائجها: أجريت الدراسة لأربعين ألف مريض أتوا للعلاج بمركز جامعة السلطان قابوس الصحي بمسقط خلال الثلاث سنوات الماضية. وتبين إن ثلاثة وستين مريضاً منهم يعانون من نقص في نشاط الغدة الدرقية, وذلك بنوعيه السريري أو دون السريري. وأجرى بحث يتعلق بأعراض وعلامات المرض.

الاستنتاجات: إن الأعراض وعلامات مرض نقص نشاط الغدة المتعارف عليها في المراجع الطبية المعتبرة ليست موجودة بالصورة المعروفة. بل وجدت أيضاً حالات نادرة, ليست منشورة في المراجع الطبية والخاصة بهذا المرض, مثل عدم المقدرة على نطق الكلام صحيحاً وصعوبة البلع.

الكلمات المرحية: الأعراض, ضعف نشاط الغدة الدرقية.

Objective: This study was to review the common and unusual symptoms of hypothyroidism.

Method: A retrospective study was done of forty thousand patients attending Sultan Qaboos University Health Center (SQU), within a period of three years. Sixty-three patients proved to have either clinical or subclinical hypothyroidism and were screened for the different symptoms & signs of hypothyroidism.

Results: The well-known symptoms and signs of hypothyroidism reported in the medical textbooks were uncommon in this study. Symptoms such as dysarthria and dysphagia not usually mentioned in the medical textbooks were reported.

Conclusion: Early diagnosis by screening both middle-aged as well as older patients is advantageous.

Key Words: Hypothyroidism, Symptoms.

INTRODUCTION

Primary hypothyroidism is a common medical problem occurring in approximately 1 to 3% of the total population, with an annual incidence rate of 1 to 2 in 1000, in females; and 2 in 10000 in males.¹ The clinical presentation of hypothyroidism in

young patients is well detailed in classical medical textbooks.² Overt hypothyroidism is associated with typical symptoms and signs such as the slowing of motor activity, constipation, cold intolerance, menorrhagia, stiff muscles, sleep apnea, dry skin, weight gain, snoring, and a hoarse voice.² Less

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common symptoms involve the heart, muscle, joints, and blood.³ Rai highlighted the fact that the well-known signs and symptoms of hypothyroidism in older patients reported in textbooks are uncommon.⁴ The objective of this study was to find out the similarity of the symptomatology of hypothyroidism in all age groups to the typical ones reported in the medical textbooks.

PATIENTS AND METHOD

In this study, 63 out of 40,000 adult patients who attended SQU clinic within a period of three years, were diagnosed both by the general practitioners and the residents, to have clinical or subclinical hypothyroidism (free T4 is normal and Thyroid Stimulating hormone is high). This indicated a frequency of 16 per 10000 (0.16%) and accounted for 53% of the 118 patients with different types of thyroid diseases seen at the clinic. All the patients had recent primary hypothyroidism of different etiologies. A retrospective study was done from the patients' notes by using a check list including age, sex, region of the community, nationality, past medical history, family history of thyroid disease and any medications being taken. It also included a detailed list on the typical symptoms and signs of hypothyroidism as illustrated in Table 1 as well as unusual symptoms such as dysphagia and dysarthria. It also included the vital signs of pulse rate, blood pressure, the body mass index (BMI), and signs of hypothyroidism such as hypothyroid face, enlarged thyroid gland, dry skin, delayed ankle jerk relaxation time, recession of frontal hair and eyebrows, myopathy, cerebellar signs, and effusions. The diagnosis was chemically confirmed by high serum thyroid stimulating hormone (TSH) levels (>10 miu/L), and low serum free thyroxine level (FT4), (< 9 PmoL/L). The normal value of TSH is between 0.3

and 5.0 miu/L and that of FT4 between 9.3 and 23 PmoL/L).

RESULTS

Sixty-three out of 118 patients with different types of thyroid diseases were found to have hypothyroidism. Thirty had hypothyroidism with low free T4 and high TSH, while 33 had subclinical hypothyroidism that is with normal free T4 and high TSH. Eight patients out of the 30 patients who were hypothyroid, were already diagnosed and came for follow up. Of the hypothyroid patients, 66% were females, 66% were middle aged between 40-60 years old, with a mean of 50 years. Ten percent were below 20 years, 3% were more than 60 years old. Half of the patients were Omanis. All had normal past medical histories with no family history of thyroid disease.

The presenting symptoms of these patients are shown in Table 1. Fatigue, the commonest symptom accounted for 25%, followed by constipation which accounted for 20%. Rare symptoms such as dysarthria and dysphagia associated with hoarse voice, sleep apnea, all of which were localized in the oropharyngeal region were observed in one patient. The patient had no goiter to explain these symptoms. Clinical and radiological investigations were done to exclude other possible neurological causes. Another rare presenting symptom was the swelling of the lower limbs, which was observed in another patient. Twenty-four patients (10 hypothyroid plus 14 subclinical hypothyroid) were asymptomatic, accounting for 38% of patients with hypothyroidism. Seven patients had only one symptom, and that was either constipation or fatigue. Three patients had two symptoms. Three had three symptoms, and one had four symptoms. Four patients had only one sign of hypothyroidism, either dry skin or the presence of a goiter. Only one patient had two signs. The remaining

Table 1: Distribution of hypothyroid symptoms and signs among study population in Oman

Distribution	No. of patients
Symptoms:	
No symptoms of hypothyroidism	24
Fatigue	8
Constipation	6
Weight gain	3
Carpal tunnel syndrome	3
Menorrhagia	1
Dysphagia	1
Dysarthria	1
Sleep apnea	1
Snoring	1
Signs:	
Dry skin	3
Goiter	3
Odema of the lower limbs	1
No signs of hypothyroidism	57

patients, i.e. 25 out of 30 patients with hypothyroidism, had no signs. The 38 patients with subclinical hypothyroidism were asymptomatic and had no signs. Some classical signs of hypothyroidism such as hoarseness of voice, hair loss, bradycardia, and confusion were uncommon. All patients showed normal blood count and erythrocyte sedimentation rate (ESR), with normal biochemical findings.

DISCUSSION

The aim of this study was to determine the clinical features of hypothyroidism in different age groups by comparing the frequencies of the clinical signs and symptoms. The frequency rate of this disease was 16:10000 patients. The results of this study showed that the problem is not uncommon in Oman. Most of these patients were middle-aged, the mean being 50 years. The majority were females. Thyroid disorders are more common in women than in men. This gender difference can be accounted for, in part, by the fact that thyroid disorders are by nature autoimmune which is more frequently in women than in

men.¹¹ Almost half of these patients were asymptomatic for hypothyroidism. The majority of symptoms were vague and not specific to a particular disease. The major presenting symptom was fatigue, not a specific symptom for hypothyroidism which was the only symptom in 30% of the patients. The well-known signs were also not common. It seems that the symptomatology of hypothyroidism for this middle-aged group (40-60 years) of patients was not much different from that of the elderly group (above 60 years). A lot of studies have proved that thyroid dysfunction in the elderly often goes undiagnosed,⁴⁻⁷ because symptoms attributed to thyroid disease, such as lassitude, depression, and change in appetite may also be the result of old age. The result of this study was different from the result of Stanely.⁶ He stated that, in the middle-aged and young patients, the diagnosis of hypothyroidism can be done by clinical presentation and their symptoms can readily be identified when they develop.⁶ In this study, the well-known symptoms and signs of hypothyroidism, reported in the medical text books,¹ and observed by Stanely,⁶ were uncommon among the group of middle-aged patients. The majority of these patients had clinical features that could be attributed to other conditions. Besides the lack of the usual well-known signs in the majority of the patients who were asymptomatic, hypothyroidism was obscured by the presence of concurrent unrelated illness.

One patient presented with the unusual symptom of dysarthria,⁸ and dysphagia⁹ as well as sleep apnea and snoring,¹⁰ all of which were symptoms localized in the otolaryngeal region and not mentioned in the medical textbooks.

CONCLUSION

Symptoms and signs of hypothyroidism reported in medical textbooks cannot be

relied on for diagnosing hypothyroidism in both middle-aged as well as the elderly. Earlier diagnosis through screening has an advantage over diagnosis by clinical presentation.¹²

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