Case Report

HYPOTHYROIDISM PRESENTING WITH DYSARTHRIA

Kawther T. El-Shafie, *MD*
Family and Community Medicine Department, College of Medicine, Sultan Qaboos University, Al-Khoud, Sultanate of Oman

إن مرض نقص إفراز نشاط هرمون الغدة الدرقية من أمراض الغدد واسعة الانتشار. ويتصف هذا المرض بأعراض وعلامات سريرية معينة. إن الأعراض التي يتصف بها تتمثل بالخمول ,والشعور بعدم تحمل البرد, ضعف في الذاكرة والقوة البدنية، نقص في الشهية للأكل، زيادة الوزن وجفاف الجلد. يقدم فى هذا البحث حالة امرأة في سن التاسعة والثلاثين تشكو من صعوبة في الكلام وهى الشكوى الرئيسية التى جاءت بها.
بعدالاستفسار عن أعراض أخرى، اتضح أنها تعاني من أعراض تنحصر في منطقة الفم والحنجرة مثل اختفاء قليل فى الصوت، عسرة بلع وتوقف التنفس أثناء النوم، مع الشخير. قد ثبت بالفحوصات المخبرية أنها تعاني من نقص شديد بنشاط الغدة الدرقية بالإضافة إلى وجود مضادات أجسام للغدة الدرقية بالدم. وبعد تناولها لهرمون الثيروكسين، اختفت مشكلة عدم القدرة على الكلام وكل الأعراض الأخرى. وبالتالي يمكن القول إن عدم القدرة على الكلام يمكن أن تكون الشكوى الرئيسية لمرض قصور الغدة الدرقية ويختفي بتناول هرمون الثيروكين.

الكلمات المرجعية: صعوبه النطق , ضعف نشاط الغده الدرقيه

Hypothyroidism is a common endocrine disorder with characteristic clinical symptoms and signs. Typical symptoms of hypothyroidism are lethargy, cold intolerance, slowing of intellectual and motor activity, decreased appetite, weight gain, and dry skin. A 39-year-old female presented to the clinic with dysarthria as the chief symptom. Subsequent questions revealed that other symptoms were confined to the otolaryngeal region, which were episodes of mild dysphonia, dysphagia, sleep apnea, and snoring. Laboratory data revealed marked hypothyroidism and positive tests for antithyroglobulin and antimicrosomal antibodies. After administration of thyroxin, the dysarthria and the other symptoms rapidly disappeared. Dysarthria may be the presenting symptom of hypothyroidism and can be resolved after hormone replacement therapy.

Key Words*: Dysarthria Hypothyroidism,*

INTRODUCTION

Endocrine disorders may complicate, cause or mimic otolaryngologic disorders, some of which may be anatomical, due to an enlargement of the thyroid gland, while others are physiological, resulting from

Correspondence to:
Dr. Kawther T. El-Shafie*, Family and Community Medicine Department, College of Medicine, Sultan Qaboos University, P.O. Box 35, Al-Khoud 123, Sultanate of Oman*

increased or decreased glandular activity.[1] Hypothyroidism is characterized by the slowing of mental and motor activity, depression, constipation, cold intolerance menorrhagia, stiff muscles, carpal tunnel syndrome, sleep apnea, dry hair and skin, weight gain, snoring and a hoarse voice.[1] Less common symptoms involve the heart, muscles, joints, and blood.[2] Dysarthria as the presenting symptom of hypothyroidism has only been reported once before.[3] Here, we present an unusual case of hypothyroidism presenting with dysarthria.

CASE REPORT

A 39-year-old female presented to the clinic with dysarthria of six months duration. She had noticed that she was developing a lisp. On further questioning, it was revealed that there had been episodes of dysphonea, snoring, sleep apnea, dysphagia and choking during eating or drinking. Her past medical history was normal apart from one occasion of delayed recovery from anaesthesia during surgery for a fractured femur the year before. Clinical examination, including the central nervous system, was normal apart from a slightly puffy face. Her thyroid gland was not palpable. An otolaryngeal examination revealed no local cause for her problem. There was no abnormality in the movement of the tongue or pharygeal/palate muscles. A further neurological examination did not show any abnormality. Routine thyroid function tests showed a free thyroxin of < 5 pmol/L (normal 9.2-23.9 pmol/L), a thyroid stimulating hormone of 82.7 miu/L (normal 0.32-5.00 miu/L), antithyroglobulin antibodies were 1:320 u/ml (normal 1:40 u/ml), antiperoxidase autoantibodies of 1:1600 u/ml (normal 1:40 u/ml). Radioactive iodine uptake was low 0.18% (normal 1-4%). A complete blood count film was consistent with iron deficiency, a haemoglobin of 7grams (normal 11-16 grams), low serum iron of 2 umol/L (normal 10-28 umol/L), increased red cell distribution width (RDW) of 17.2 (normal 11.6-13.7%). Other biochemical abnormalities were high serum cholesterol of 6.9 mmol/L (normal 3.6-6.8 mmol/L). High triglycerides of 2.5 mmol/L (normal 0.5-1.7 mmol/L). The Electroencephalogram (EEG) was normal.

Based on these findings, hypothyroidism was diagnosed. In the light of the patient's diagnosis, a second history was taken which showed that she suffered from other symptoms of hypothyroidism such as, dry skin, generalised weakness, excessive sleeping , hoarse voice, and menorrhagia. All of these symptoms were neither reported nor elicited. After the administration of thyroxin, the symptoms rapidly improved. Two months after the initiation of therapy, the patient had no more dysarthria or other associated symptoms.

DISCUSSION

Dysarthria is a disturbance of articulation that may be caused by a neuromuscular lesion, or an abnormality of the vocal cords. The first may result from damage to the central or peripheral nervous system such as head trauma, brain stem infarction, bulbar palsy, motor neuron disease, peripheral neuropathy, Huntington's Chorea, Parkinson's disease, multiple sclerosis, myasthenia gravis, or muscle disease.[4] The second may be attributable to congenital, traumatic, inflammatory, tumors, or post-operative lesions of the vocal cords. These causes were unlikely in this patient, because she showed no associated clinical features of these diseases besides the normal neurological examination and investigations. Other causes such as congenital or aquired storage disorders such as amyloidosis, and such endocrine disorders as acromegaly or hypothyroidism,[3] as in the presented case, may lead to an enlargement of one or more of the

components of the vocal cords.[5,6] The most likely cause for the dysarthria in this patient was hypothyroidism. This was supported by the abnormal thyroid functions and the response of the dysarthria to thyroxin.

Dysarthria due to hypothyroidism had been reported only once previous to this case.[3] The pathophysiology of dysarthria in hypothyroidism can be explained by edematous swelling of laryngeal and hypopharyngeal structures in combination with macroglossia.[3] It has been shown that macroglossia in hypothyroidism is caused by a thickening of the epithelial tissue.[6] These changes can also explain the choking and the dysphagia which this patient experienced. Dysphagia is also an unusual symptom of hypothyroidism. There have been a few reports of hypothyroidism responsible for secondary dysphagia.[10-12] Her sleep apnea may also be a manifestation of hypothyroidism, most likely caused by edema and myopathy.[7] Sleep apnea attributable to hypothyroidism is reversible with thyroxin replacement therapy.[8] The episodic hoarseness of voice can also be explained by hypothyroidism,[1] as well as the delayed recovery from anaethesia the year before, most probably the result of undiagnosed hypothyroidism.[9,13,14] Unfortunately, thyroid function tests had not been performed on our patient at that time. Iron deficiency anemia in this patient was due to menorrhagia, which is one of the characteristic features of the disease.[1] Hyperlipidaemia may also be due to hypothyroidism, a known association.[1]

Clinical implication of the presented patient was that dysarthria may be the presenting symptom of hypothyroidism, even if other symptoms had been present for a long time. Hypothyroidism as the cause of dysarthria was confirmed with the discovery of additional symptoms in the patient's history. Otolaryngeal symptoms should therefore be considered possible symptoms of hypothyroidism.[15] Prompt recovery of dysarthria is expected after hormone replacement therapy.

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