

When Eyes Speak Louder: Uncontrolled Hypothyroidism Revealed Through Madarosis and Eyelid Edema

Quando os Olhos Falam Mais Alto: Madarose e Edema Palpebral como Sinais de Hipotireoidismo Não Controlado

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Acta Med Port 2024 Nov;37(11):805-806 • <https://doi.org/10.20344/amp.21720>

Keywords: Coma; Myxedema; Hypothyroidism
Palavras-chave: Coma; Mixedema; Hipotireoidismo



Figure 1 – Marked eyelid edema and madarosis (loss of the distal third of the eyebrows) in a 79-year-old woman with decompensated hypothyroidism

A 79-year-old woman, with dependence on daily activities, and history of moderate-stage dementia and hypothyroidism due to total thyroidectomy for multinodular goiter, was hospitalized for prostration, arterial hypotension (78/45 mmHg), hypoglycemia (47 mg/dL), anorexia, and urinary tract infection, scoring 65 points on the Diagnostic Scoring System for Myxedema Coma (≥ 60 points is highly suggestive/diagnostic of myxedema coma).¹ Despite the correction of hypoglycemia and the start of antibiotic therapy with decreasing inflammatory markers, the patient did not improve her consciousness level in the following two days. Physical examination revealed marked eyelid edema, madarosis (loss of eyebrows or eyelashes), and pitting edema in the upper and lower limbs. Laboratory studies revealed TSH 135 $\mu\text{U/mL}$ (reference range: 0.27 – 4.20 $\mu\text{U/mL}$) and T4L

< 0.039 ng/dL (reference range: 0.93 – 1.70 ng/dL). The patient was referred to the Endocrinology clinic and was started on hydrocortisone 100 mg every eight hours, received a single dose of levothyroxine 200 mcg IV, and kept levothyroxine on 100 mcg once a day. The next day, her arousal level, the eyelid edema, and the pitting edema in the limbs had significantly improved. The patient was discharged five days later.

The mortality rate of myxedema coma ranges from 30% - 60%, mainly due to delayed diagnosis and treatment.² Diagnosis is clinical and should be suspected, especially in elderly patients with altered mental status and a history of hypothyroidism. Early replacement therapy with hydrocortisone and levothyroxine is crucial, even before analytical confirmation.³ Clinicians should be aware of less common

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Recebido/Received: 19/05/2024 - **Aceite/Accepted:** 02/09/2024 - **Publicado/Published:** 04/11/2024

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signs of hypothyroidism, such as eyelid edema and madarosis. However, these signs are nonspecific, so other systemic diseases should be considered.

AUTHOR CONTRIBUTIONS

NRJ: Data acquisition, analysis and interpretation, writing and critical review of the manuscript.

JS, PT: Data acquisition, analysis and interpretation, critical review of the manuscript.

All authors approved the final version to be published.

PROTECTION OF HUMANS AND ANIMALS

The authors declare that the procedures were followed according to the regulations established by the Clinical Research and Ethics Committee and to the Helsinki Declaration of the World Medical Association updated in 2013.

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DATA CONFIDENTIALITY

The authors declare having followed the protocols in use at their working center regarding patients' data publication.

PATIENT CONSENT

Obtained.

COMPETING INTERESTS

The authors have declared that no competing interests exist.

FUNDING SOURCES

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

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