



Thyrotoxic Dysphagia in a Child

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To the Editor: A 2-y-9-mo-old female presented with dysphagia for solid foods associated with vomiting and drooling of saliva for 7 mo. On examination, she was malnourished and had resting tachycardia. A diffuse symmetric, nontender goitre (grade 1) with soft consistency and smooth surface was palpable. Nervous system examination showed a weak gag reflex. There was no ophthalmopathy or obvious muscle wasting. Rest of the examination was normal.

Ultrasonography of the neck revealed a bulky thyroid with heteroechoic echotexture. Thyroid profile showed evidence of thyrotoxicosis with elevated free T4: 2.7 ng/dL (0.85–1.75 ng/dL), free T3: 23.69 pg/mL (2.58–4.02 pg/mL), and suppressed TSH: 0.01 IU/mL (0.35–4.94 uIU/mL). Elevated TSH receptor antibody: 29.97 IU/L (normal < 1.22 IU/L) and diffusely increased ^{99m}Tc pertechnetate uptake on thyroid scintigraphy scan confirmed the presence of Grave disease. The patient was started on antithyroid drug carbimazole (0.5 mg/kg/d) and showed improvement in symptoms with resolution of dysphagia by 4 wk.

Grave disease is uncommon in children with a prevalence of 0.1–3/100,000 [1]. The initial signs may be nonspecific leading to a delayed diagnosis [1]. The goiter can be of variable size and may go unnoticed [1]. Dysphagia is an uncommon presenting symptom of Grave disease and in a review of literature, Chiu et al. found reports of only 13 adults with such a clinical presentation over a 30-y span [2]. Pathophysiologic mechanisms include a massively enlarged thyroid gland causing mechanical obstruction; and in patients without significant thyroid enlargement (as in our child), it is postulated that thyroid hormones exert a direct effect on

bulbar muscles by uncoupling oxidative phosphorylation, reducing adenosine triphosphate production and decreasing muscle contractility leading to disturbances in oropharyngeal peristalsis and dysphagia [3]. Complete resolution in dysphagia has been seen following therapy with patients improving within 14 wk (median 2.5 wk) of adequate treatment [2, 4].

To conclude, we report an unusual presenting symptom of thyrotoxicosis in a child. One should consider evaluating for hyperthyroidism in unexplained dysphagia.

Declarations

Conflict of Interest None.

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