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Importance of the early diagnosis of acromegaly. Evolution of mandibular growth and dental occlusion in a case with a late diagnosis

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Abstract

Background: Despite the high prevalence of oral and maxillofacial manifestations in the early stages of acromegaly, dentists do not represent an important percentage of the healthcare professionals that diagnose the disease.

Case report: The present study describes the buccodental and facial changes occurring over a period of 20 years in a patient with a late diagnosis of acromegaly.

Discussion: The facial disfiguration and buccodental problems, particularly mandibular enlargement and malocclusion, may be the key elements leading to the diagnosis.

Conclusions: It is essential to enhance awareness of the disease among dentists, and particularly among orthodontists, as they are ideally positioned to recognize and diagnose acromegaly in its early stages.

Key words: Mandibular growth, dental malocclusion, acromegaly, orthodontics, growth hormone, insulin-like growth factor 1, pituitary gland adenoma.

Introduction

Acromegaly is a rare chronic disorder caused by an excessive secretion of growth hormone (GH), in most cases secondary to the presence of a hypophyseal (pituitary gland) adenoma that leads to an increase in the blood concentration of insulin-like growth factor 1 (IGF-1), the main molecule responsible for the activity of GH [1]. In contrast to gigantism, acromegaly develops once

skeletal development has already ended and epiphyseal closure has been completed. Consequently, the hormone only causes uncontrolled growth of the facial bones and mandible, producing facial disfiguration and alterations in dental occlusion, together with enlargement of the acral (outermost or distal) parts of the body [2-4]. The prevalence of acromegaly is 20-130 cases per million people, with an annual incidence of 2-11 cases per