

Acromegaly: A Case Report

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Abstract

Acromegaly is a rarely seen disease. The fact that the duration between diagnose and the onset of the disease is long and that the prognosis is bad increases the importance of early diagnosis. The symptoms such as prognathism, anterior open bite, diastema, macroglossia or thickening in facial soft tissues involved in characteristics clinical signs detected early by the dentists emphasize the importance of the dentists.

INTRODUCTION

The hypophysis is the most important internal secretion gland. Nine different hormones are released into the blood and regulate the activities of other glands in the body. It is as large as a pea under the brain base. It consists of two lobes, front and back.¹

It comes from the words of akro and mega in Latin. Acromegaly occurs as a result of a benign tumor developing from hypophysis front lobe.^{1,2,3,4} In affected individuals, after epiphyseal plates were closed and leads to excessive secretion of growth hormone. It is a disease characterized through the thickness of soft facial tissues and gigantic bones in the face, hand and foot.^{1,2,3,5}

As a result of direct impact of the increase in the level of growth hormone hypertension, heart diseases, visual disturbance, excessive sweating, headaches, arthritis in the joint and peripheral neuropathy develop.^{2,3,6,7,8} Later, diabetes develops frequently.²

As a result of gigantic hand and foot bones, the patients complain that his or her shoes and gloves become narrower.³ If the patient lacks teeth or use denture, the dentures don't fit the jaw. As a result of excessive growth of soft tissues, the growth and thickness of lip, nose and ears are seen, and convexism in the frontal bone and excessive growth in face lines are seen. The hypertrophy of soft palatal tissue may cause or accentuate sleep apnea.^{1,2,3,4,6,9}

As a result of growth of membranous bones in the head and face, anterior open bite prognathism, malocclusion and diastema are seen in the teeth.^{1,2,3,4,6}

In radiographic examination, it is observed that there has been enlargement in sella turcica, enlargement in mandible, extension in ramus, becoming more oblique in the angulus mandible (increasing the angle between the ramus and body of the mandible) and enlargement in paranasal sinuses and prognathism (particularly frontal).^{4,10}

The tooth crowns are usually normal in size, although the roots of posterior teeth often enlarge as a result of hypercementosis. This hypercementosis may be result in increased functional and structural demands on teeth instead of a secondary hormonal effect. Supereruption of the posterior teeth may occur in an attempt to compensate for the growth of the mandible.¹⁰

CASE REPORT

Mandibular prognathism and macroglossia were observed in the clinical examination of a patient at the age of 44 who applied to the clinic of Oral Diagnosis and Radiology Department, Faculty of Dentistry at Atatürk University for protetic reasons (Fig. 1).

Figure 1

Figure 1: Panoramic Radiography



As the number of teeth in the mouth was low, no diastema was seen. In the extra oral examination, there was largeness in the size of nose, ears, lips (Fig. 2) and tongue (Fig. 3) and growth in hands (Fig. 4).

Figure 2

Figure 2: It be showed largeness in the size of nose, ears, lips.



Figure 3

Figure 3: It be showed largeness in the size of tongue.



Figure 4

Figure 4: It be showed growth in hands.



In the investigation of panoramic and cefalometric

radiograms, an enlargement in the sella tursica and prognathism and obliquity in angulus mandibula were observed (Fig. 5)

Figure 5

Figure 5: In the cefalometric radiograms, an enlargement in the sella tursica and prognathism and obliquity in angulus mandibula were observed.



Anamnesis was deepened with the suspicion of acromegaly. As a result, it was found that the patient applied to the internal diseases department of Atatürk University Research Hospital of Faculty of Medicine with the complaints of growth in tongue, chin and feet, took a medical treatment for one week, and then appointed to neurosurgery department for further investigation and was diagnosed as “ pituitary adenoma” and called for controls in three-month intervals four years ago.

DISCUSSION

The incidence of acromegaly is very rare.^{1,2,3,7} It is estimated as 60 persons per million and 4 cases are added every year, and there is same death rate ². It is usually observed in adults between 30-60 yeras. The rate is the same for both male and female ³. Diagnosis is usually made at the ages of 40-50 and as the illness develops slowly, approximately 9 years pass from the beginning of illness until its diagnosis.^{3,7} as hypertension, diabetics, coronary arterial diseases, congestive heart inefficiency, respiratory diseases and colon

cancers are seen in increasing frequency in patients with acromegaly, and as these increase the mortality rate, early diagnosis gains importance.²

The treatment is surgical removal of the tumor, drug administration and radiotherapy.^{2,8,11}

The symptoms and complications of acromegaly, treated successfully today, if diagnosed at early stage.²

Patients with findings both in the mouth and out of the mouth are accepted to be the unique ones for the dentists to diagnose early.²

As a result, canalizing the middle-aged patients whose symptoms are supported and determined with radiography and who have macroglossi, prognathism, anterior-occlusion, and diastema in teeth to endocrinologic investigation shortens the diagnosis period, prevents the development of other diseases and increases the success rate of treatment.

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