

ORIGINAL REPORTS: CASE STUDY

ACROMEGALY PRESENTING AS CARDIAC FAILURE

Background: In acromegaly, specific structural and functional changes in the heart appear to contribute to the increased mortality in this disease. This disease is uncommon in Nigeria, West Africa and little has been published about it; also rare is clinically evident heart failure. We are therefore highlighting a late presentation of acromegaly as heart failure.

Case Report: A 45-year-old woman presented with a 4-year history of progressive increase in body size, lactation and amenorrhoea, and a six-week history of worsening symptoms of heart failure. Physical examination showed coarse facial features, spade like hands and feet, pitting pedal edema, galactorrhoea, and features of congestive cardiac failure. Chest radiograph showed gross cardiomegaly. On skull radiograph, destruction of the floor of the pituitary fossa was noted, with erosion of the clinoid processes. She had hyperprolactinemia. Fasting and post-glucose growth hormones values were elevated.

Echocardiography revealed features of both diastolic and systolic dysfunction with left ventricular hypertrophy and dilation. A diagnosis of acromegalic cardiomyopathy in severe congestive heart failure was made. She was managed with anti-heart failure drugs with good results and subsequently began on a dopamine agonist. She was lost to follow up.

Conclusions: Acromegaly is uncommon in our practice. This patient presented late with complications. Management was very difficult because of the combination of severe complications and lack of resources. (*Ethn Dis.* 2008;18:104–106)

Key Words: Acromegaly, Acromegalic Cardiomyopathy, Congestive Heart Failure

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INTRODUCTION

Acromegaly is a rare pituitary disorder; because it is a chronic and slowly developing disease, clinically progressive disfigurements or disabilities go unnoticed, and diagnosis can be delayed.¹ Acromegaly is usually caused by a growth hormone (GH), secreting anterior pituitary adenoma, which leads to increased production of insulin-like growth factor 1 (IGF-1).

The disease affects 40–60 people per million with an annual incidence of 3–4 cases per million² Men and women appear to be equally affected, and the average age of presentation is 44 years. Approximately a third of cases are accompanied by hyperprolactinemia. Acromegaly is associated with a two- to three-fold increase in mortality compared with that of the age- and sex-matched general population.^{3,4} Before the advent of effective therapy, ≈80% of patients died before the age of 60 years from cardiovascular disease.⁵

Acromegaly is an uncommon disease in Nigeria, West Africa and few reports from this part of the world have been published about this disease. Clinically evident heart failure is also an uncommon presentation in acromegalics, but we describe late-stage acromegaly in a 45-year-old woman who presented with heart failure.

CASE REPORT

A 45-year-old housewife presented at the Ahmadu Bello University Teaching Hospital Kaduna with a 4-year history of progressive increase in the size of her hands and feet, excessive

oiliness of the skin, separation of her teeth, and difficulty in chewing. At the same time, she noticed a gradual increase in the size of her breasts, lactation, and cessation of menstrual flow. She had a gradual deterioration of her vision and was unable to recognize distant objects. She was diagnosed with hypertension 1.5 years before presentation and was on diuretic therapy. She had no symptoms of diabetes. Six weeks before presentation, she developed dyspnea on exertion, which progressed to dyspnea at rest, orthopnea, paroxysmal nocturnal dyspnea, body swelling, and cough productive of frothy sputum. There was severe pain in the major joints with easy fatigability.

Examination findings revealed a body mass index of 30 kg/m², waist circumference of 101 cm, hyperpigmented oily skin, thickened and prominent supraorbital ridges, prominent zygomatic arches, gapped dentures, and spade-like hands and feet. She also had pitting pedal edema and swollen, non-tender breasts with expressive galactorrhea and mild pallor. Her pulse rate was 110 bpm, regular, but of small volume. Supine blood pressure was 120/80 mm Hg, with a nonpalpable apex beat, probably due to the thick chest wall. The heart sounds were S1, S2, and S3 gallop with a mitral regurgitation murmur. Other findings were bilateral basal crepitations in the chest, a tender hepatomegaly (14 cm below the right costal margin), and a bitemporal hemianopia.

Investigation results showed normocytic, normochromic anaemia with a packed cell volume of 28%. Chest radiograph showed gross cardiomegaly, destruction of the floor of the pituitary