

Images in Clinical Rheumatology

Acromegaly[☆]

Acromegalia

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Case Report

55 year old woman who complains of polyarticular joint pain, predominantly in the hands. The pain was diffuse, continuous and low in intensity. The physical examination revealed diffuse thickening of soft tissues of hands and feet (Figs. 1 and 2).

Diagnosis and Progression

Radiographs of hands and feet (Figs. 3 and 4) showed an increase of soft tissue and joint space. In addition, the patient underwent laboratory analyses. We found serum growth hormone (GH) and IGF-1 were elevated: 5.67 g/l (0–3.5 g/l) and 121 nmol/l (6.1–24, 8 nmol/l),



Fig. 1. Hands. Diffuse thickening of soft tissues. Swan neck deformity of the third fingers, bilaterally, with increased interphalangeal creases.



Fig. 2. Sq. Diffuse thickening of soft tissues.



Fig. 3. Simple X-rays of hands. Soft tissue augmentation. Diffuse periostitis.

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Fig. 4. Feet X-ray. Increased joint space due to hypertrophy of the cartilage. Bony proliferation.

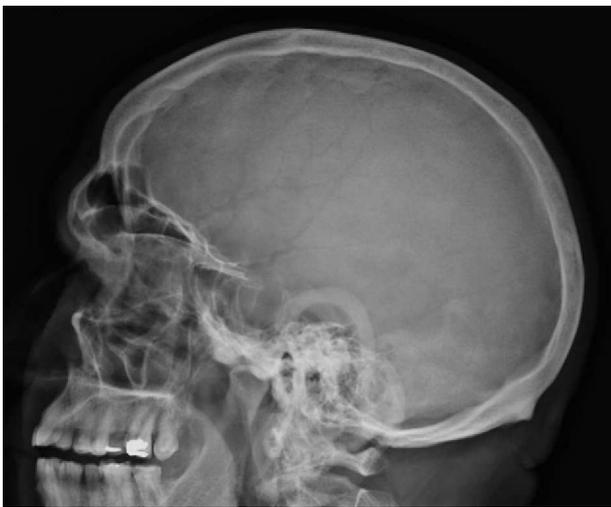


Fig. 5. Simple X-ray of the skull. Enlargement of the sella. Thickening of the cranial vault. Increased size of the sinuses.

respectively. The patient was diagnosed with acromegaly. To complete the study she underwent a skull X-ray (Fig. 5) which featured an enlarged sella and a brain MRI detected the presence of a pituitary adenoma (Fig. 6).

Discussion

Acromegaly usually is caused by a pituitary adenoma. Its prevalence is 4 cases/million. Excess GH acts on osteocytes, chondrocytes and fibroblasts, stimulating the progressive growth of acral parts of the body which results with radiological changes. Joint involvement in acromegaly is one of the most common clinical

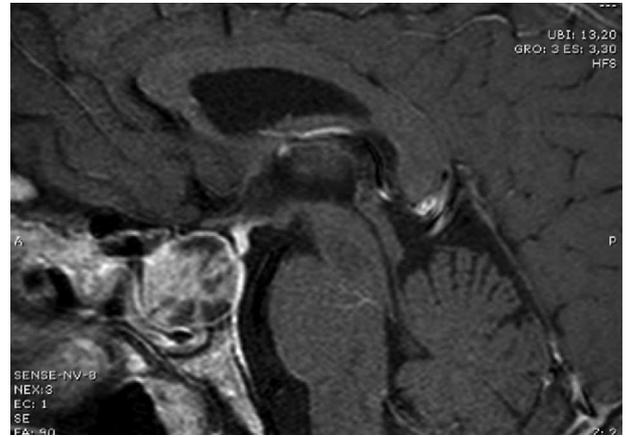


Fig. 6. CNS magnetic resonance image. Pituitary adenoma.

complications and may be the earliest manifestation in a significant proportion of patients. Musculoskeletal manifestations that occur in acromegaly are nonspecific, progressive and have an insidious onset, such as back pain, joint pain on the extremities, compression neuropathy and Raynaud's phenomenon.^{1,2}

Radiologically, at an early stage, there is increased joint space due to hyaline cartilage hypertrophy that later evolves to a pattern indistinguishable from primary osteoarthritis.³

Ethical disclosures

Protection of human and animal subjects. The authors declare that no experiments were performed on humans or animals for this investigation.

Confidentiality of Data. The authors declare that they have followed the protocols of their work centre on the publication of patient data and that all the patients included in the study have received sufficient information and have given their informed consent in writing to participate in that study.

Right to privacy and informed consent. The authors have obtained the informed consent of the patients and /or subjects mentioned in the article. The author for correspondence is in possession of this document.

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