Diagnosing psoriatic arthritis of the temporomandibular joint: a study in radiographic images

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INTRODUCTION

Psoriatic arthritis (PA) is a chronic systemic disease affecting the joints of the body. Diagnosis is a challenge, especially in those 15% of cases where dermal symptoms do not precede arthritis. Involvement of the temporomandibular joint (TMJ) is very rarely seen as a first presentation.¹ The diagnosis is based on the presence of the triad of: (1) psoriasis, (2) erosive polyarthritis and (3) negative serological test for rheumatoid factor.² In case of the TMJ, the radiological presentation of the arthritis is in the form of erosion and resorption of the mandibular condyles with spicules of calcification and osteophytic spurs in the joint space.²⁻³ In this report we present CT scans and skull x-ray of a case of PA.

Case report

A 33-year-old man with a history of psoriasis reported with preauricular pain for 1 year. The patient complained of dull pain on mastication with no occlusal or odontogenic contributory factors. Muscle relaxants and analgesics prescribed elsewhere seemed to give no relief. However, the medical history showed that the patient had been diagnosed with dermal psoriasis for 5 years and was receiving chemotherapy (methotrexate + steroids). On the basis of the aforementioned history and negative rheumatoid factor, the patient was diagnosed with PA. A transcranial x-ray of the skull showed cupping of the condyle and osteophytic body in the joint space (figure 1). This was followed by a CT scan of the TMJ which showed bilateral erosive changes in the condyles with calcified bodies in the joint space (figures 2–8).

Figure 1 Image showing erosion and resorption of mandibular condyles with spurs of calcification and osteophytes in the joint space.

Figure 2 CT scan of mandible showing resorption of the condyle and osteophytes in the joint space in axial view.

Figure 3 CT scan of the mandible showing resorption of the condyle and osteophytes in the joint space in coronal view.

Figure 4 CT scan of mandible showing resorption of the condyle and osteophytes in the joint space in coronal view.

To cite: Kulkarni AU, Gadre PK, Kulkarni PA, et al. *BMJ Case Rep* Published online: [please include Day Month Year] doi:10.1136/bcr-2013-010301

Figure 5 CT scan of mandible showing resorption of the condyle and osteophytes in the joint space in coronal view.

Figure 6 CT scan of mandible showing resorption of the condyle and osteophytes in the joint space in coronal view.

Learning points

- The vague nature of presentation of psoriatic arthritis warrants exhaustive case history taking, clinical examination and laboratory as well as radiological investigations.
- The diagnosis of psoriatic arthritis is clinically and radiologically challenging.
- Adoption of a fixed protocol for imaging in dermal psoriasis as well as temporomandibular joint dysfunction is needed to rule out any correlation through coordination between dental, ENT and radiology departments.

Contributors The case was received and examined by the authors in the clinic. The cases were collectively discussed and evaluated. The final diagnosis was arrived at under the guidance of KSG.

Figure 7 CT scan of mandible showing resorption of the condyle and osteophytes in the joint space in coronal view.

Figure 8 CT scan of mandible showing resorption of the condyle and osteophytes in the joint space in coronal view.

Competing interests None.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

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