[PICTURES IN CLINICAL MEDICINE]

Paget's Disease of the Skull

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Key words: skull, cotton wool appearance, SPECT-CT, occipital condyle, Paget's disease of bone

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Picture 1.

Picture 2.

Picture 3.

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Picture 4.

A 96-year-old man was admitted to our hospital because of urosepsis with shock. A physical examination revealed a body temperature of 37.8 °C, blood pressure of 74/41 mmHg, hearing loss of the left ear, maxillary teeth defects and right costovertebral angle tenderness. The corrected calcium level was 9.4 mg/dL, and alkaline phosphatase was 380 IU/L (normal, 115-330). Bone formation markers were mildly elevated, and bone resorption markers were normal. Head computed tomography (CT) revealed a mixture of osteolytic and osteoblastic lesions (Picture 1). Skull X-ray showed no punched-out lesions but the characteristic ‘cotton wool’ appearance (Picture 2). Single-photon-emission CT (SPECT)-CT (Picture 3) of bone scintigraphy (Picture 4) showed that there was a strong radio isotope uptake in the occipital condyle. He was diagnosed with Paget’s disease of bone, which is a very rare metabolic bone disease, showing an incidence of about 2.8 per million in Japan (1, 2). The administration of vitamin D and calcium preparations was started without bisphosphonate.

The authors state that they have no Conflict of Interest (COI).

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