

Metastasis in vertebra mimicking acute compression fractures in a patient with osteoporosis MRI findings

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摘要

Abstract

Elderly patients who have osteoporosis and a cancer history with backache and vertebral fractures are diagnostic challenges. We present a case of an 87-year-old man who complained of severe low-back pain with radiation to the lower limbs and weakness of the lower limbs. The patient had had a fall on a bus 1 month before admission. The patient also had a history of colon cancer and had received a colostomy 9 years before. In this admission, lumbar spine radiographs showed compressive fractures of vertebral bodies at L1 and L3. Magnetic resonance imaging (MRI) showed hyperemic change of the L3 marrow with osteonecrosis (fluid sign). The ventral thecal sac was slightly compressed due to retropulsion of L3. The L1 marrow was normal. Bone densitometry of the calcaneus revealed osteoporosis. The patient was then treated by vertebroplasty and bilateral foraminotomy of L3 after a diagnosis of acute compressive fracture. On histology, there was a metastatic adenocarcinoma arranged in glands and nests in the bone and paraspinal soft tissue. On retrospective viewing, an axial gadolinium-enhanced MRI revealed paraspinal extension of soft tissue at L3, which is highly suggestive of metastasis in a vertebra.