



**What is the likely diagnosis?**

## Pathologic Fracture and Lytic Lesions in Multiple Myeloma



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**A** 76-YEAR-OLD WOMAN WAS ADMITTED WITH AN EXACERBATION OF CHRONIC OBSTRUCTIVE PULMONARY disease. Her condition improved with bronchodilators, prednisolone, an antibiotic, oxygen, and supportive measures. Two years previously, she had presented with vertebral compression fractures, Bence Jones proteinuria, and IgG paraproteinemia. The diagnosis of multiple myeloma had been confirmed by examination of the bone marrow, which showed 36 percent atypical plasma cells. The patient had tolerated chemotherapy poorly and was treated only with opiates and sodium clodronate. Three days after the present admission, pain and swelling developed in her right arm without previous trauma. Radiographs of the arm showed a displaced fracture of the right humerus and multiple lytic lesions (Panels A and B), which are typical of myeloma. The serum calcium level was normal, but the alkaline phosphatase level was raised, at 390 U per liter (normal range, 70–300). The patient underwent intramedullary pinning of the fracture. She died on the fifth postoperative day after cardiac arrest.

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