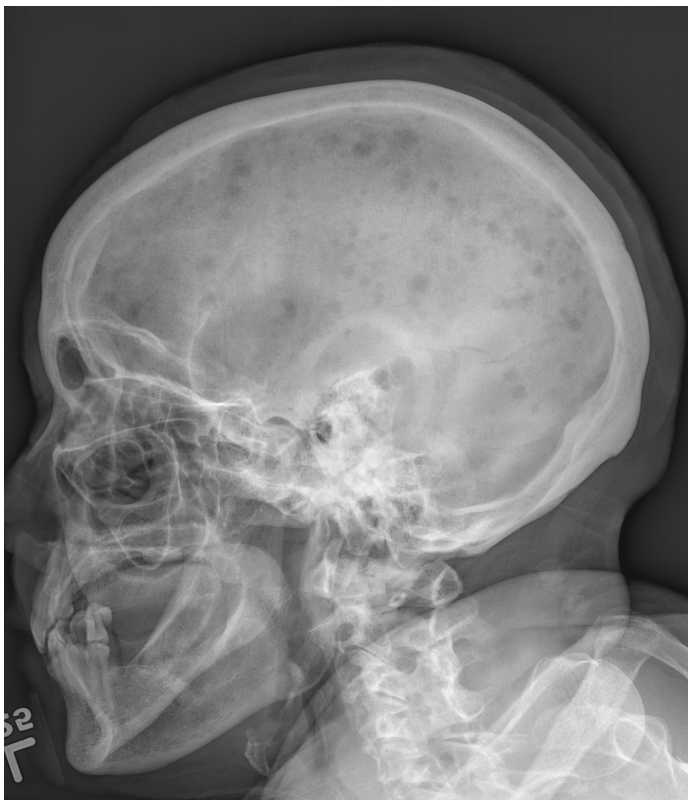
# Confusion Follows Malaise and Pain



A 70-year-old woman is brought to the emergency department by her family for evaluation of acute altered mental status. According to the family, the patient has been complaining of general malaise, back pain, and severe joint pain for the past few days. Her confusion has increased in the past 24 hours. Medical history is significant for hypertension.

Physical exam reveals an elderly female who appears somewhat uncomfortable. Vital signs are normal. Overall, her exam is stable. She has tenderness throughout her back and several of her joints, but no abnormal effusion or swelling is noted.

While the patient is in triage, baseline labwork is ordered. The results indicate a serum creatinine of 1.83 mg/dL; serum calcium, 16.7 mg/dL; and serum magnesium, 1.4 mEq/L. Radiograph of the skull is obtained. What is your impression?

*see answer on page 18 >>*

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require a cane for ambulation but prefers to walk with one. He also describes himself as a "nervous worrier," hence his use of marijuana.

Physical examination reveals an alert, anxious, and apprehensive man. His weight is 342 lb and his height, 70 in. He is afebrile and diaphoretic. Vital signs include a blood pressure of 164/98 mm Hg; pulse, 80 beats/min; respiratory rate, 20 breaths/min$^{-1}$; and temperature, 97.4°F.

Pertinent physical findings include no evidence of jugular venous distention or thyromegaly, clear lung sounds bilaterally, a regular rate and rhythm with distant muffled heart sounds, and no extra heart sounds or murmurs. The abdomen is obese, soft, and nontender. The peripheral pulses are equal bilaterally, and there is 2+ pitting edema present to the level of the knees. Multiple shallow ulcers are present on both lower legs, and a deep ulcer is present on the inferior surface of the left foot.

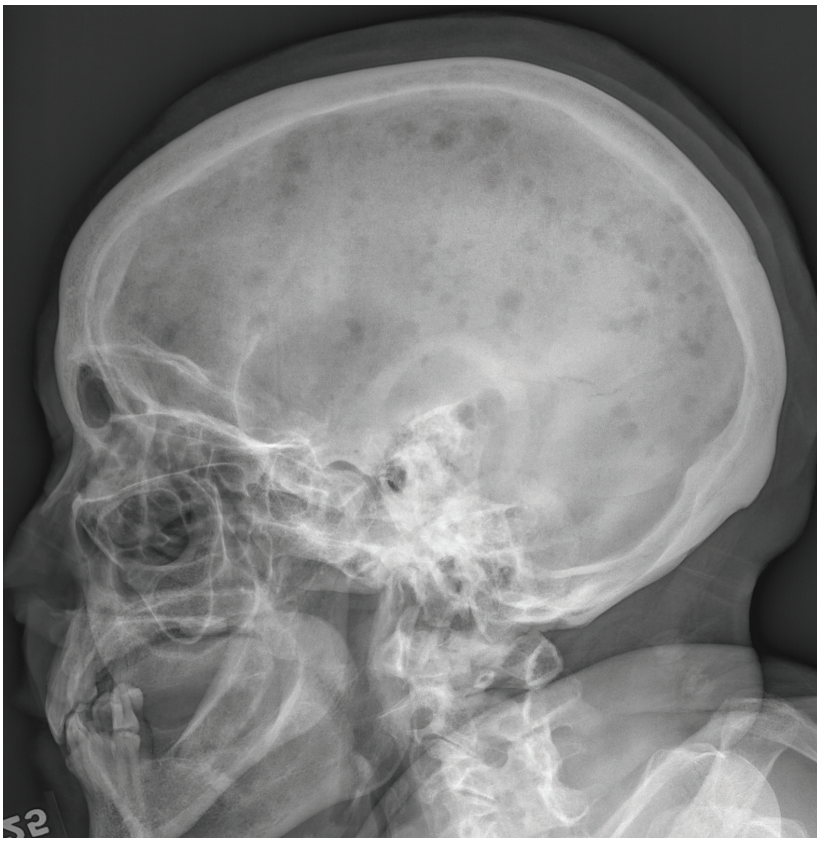
After the patient is attached to telemetry monitoring and blood samples are drawn for analysis, an ECG is obtained. It reveals a ventricular rate of 80 beats/min; PR interval, 162 ms; QRS duration, 106 ms; QT/QTc interval, 370/426 ms; P axis, 51°; R axis, –20°; and T axis, 70°. What is your interpretation of this ECG?

## ANSWER

This ECG is representative of an acute anterior MI. This is evidenced by ST segment elevation in leads $V_2$ through $V_4$. Inferolateral injury is indicated by ST elevations in leads II, III, and aVF, as well as in leads $V_5$ and $V_6$.

Infarction was confirmed via laboratory data. Subsequent cardiac catheterization documented occlusion of the proximal left anterior descending artery. **CR**

>> *continued from page 13*



## ANSWER

The radiograph demonstrates innumerable small lytic defects throughout the calvarium. The patient's confusion is most likely secondary to profound metabolic abnormalities. However, in the setting of lytic bone lesions, metabolic abnormalities of renal insufficiency, severe hypercalcemia, and hypomagnesemia, one must be concerned about an occult myeloma, and appropriate work-up must be done. **CR**



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## ACKNOWLEDGEMENT

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