

DIAGNOSTIC CHALLENGE

Is it real?

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Case history

A young man was found lying in a ditch at the side of road near his parked motor vehicle. The mechanism of injury was uncertain and, although he was alert at the scene, it was not clear if there had been loss of consciousness prior to ambulance arrival. The patient was a bit drowsy and when asked what happened he claimed that he was assaulted. Furthermore, he complained of pain “all over,” including his neck. He was immobilized and transferred to the emergency department (ED) with spinal precautions.

On admission to the ED, the patient was alert and oriented in all 3 spheres with stable vital signs: heart rate 85 beats/min, blood pressure 148/76 mm Hg, respiratory rate 18 breaths/min, temperature 37°C. There were multiple ecchymoses to the face, but no signs of a basal skull or facial fracture. Palpation of the cervical spine revealed poorly localized midline tenderness. However, there were no neurologic deficits in the upper extremities. There were also no signs of trauma to the thorax, abdomen, thoracolumbar spine or lower extremities. Not surprisingly, the patient smelled of alcohol.

Question

During the primary survey, x-rays of the cervical spine are ordered (Fig. 1). The radiology technician asks you to review the lateral image so that the collar can be removed to perform the anterior–posterior and odontoid views. You

have a look and conclude that the patient has the following finding:

- a) posterior neural arch fracture;
- b) hangman’s fracture (bilateral fractures of the pedicles of C2);
- c) spina bifida occulta; or
- d) normal cervical spine.

For the Answer to this Challenge, see page 60.

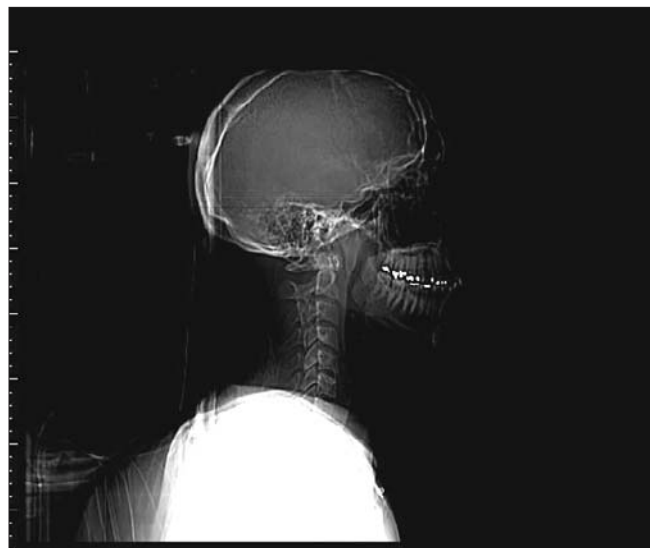


Fig. 1. Lateral cervical spine radiograph

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