Teaching NeuroImages: Pseudo–subarachnoid hemorrhage

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Figure Noncontrast axial head CT

Noncontrast axial head CT demonstrating abnormal hyperdensity in the subarachnoid spaces and diffuse sulcal effacement and loss of gray–white differentiation. Note the lack of blood in the basilar cistern and loss of gray–white differentiation.

A 28-year-old woman with history of IV drug use was found comatose in asystole. Pupils were fixed and dilated. Urine toxicology was positive for cocaine, opiates, and benzodiazepines. Head CT revealed sulcal effacement and loss of gray–white differentiation (figure). The subarachnoid spaces and interhemispheric fissures showed areas of abnormally increased density, but the basilar cistern was void of blood.

Pseudo–subarachnoid hemorrhage is a rare radiographic sign that occurs in the setting of marked hypoxic-ischemic injury, spontaneous intracranial hypotension, or pyogenic meningitis.^{1,2} The relative hypoattenuation of the parenchyma and displacement of the CSF simulates the appearance of subarachnoid blood.³

AUTHOR CONTRIBUTIONS

Concept and design: Dr. Green, Dr. Westwood. Acquisition of data: Dr. Westwood, Dr. Green. Analysis and interpretation of data: Dr. West-

wood, Dr. Burns, Dr. Green. Drafting of the manuscript: Dr. Westwood. Critical revision of the manuscript for important intellectual content: Dr. Green, Dr. Burns. Supervision: Dr. Green, Dr. Burns.

DISCLOSURE

Dr. Westwood serves on the editorial advisory board for OnExamination, an online BMJ learning resource based in the UK. Dr. Burns serves as Review Editor for *Frontiers in Hospitalist Neurology* and on the editorial board of *Neurocritical Care* and receives research support from CardioNet. Dr. Green receives publishing royalties for *Neurological and Neurosurgical Intensive Care, fourth edition* (Lippincott Williams & Wilkins, 2003).

REFERENCES

1. You JS, Park S, Park YS, Chung SP. Pseudo-subarachnoid hemorrhage. *Am J Emerg Med* 2008;26:521.
2. Schievink WI, Maya MM, Tourje J, Moser FG. Pseudo-subarachnoid hemorrhage: a CT-finding in spontaneous intracranial hypotension. *Neurology* 2005;65:135–137.
3. Given CA II, Burdette JH, Elster AD, Williams DW III. Pseudo-subarachnoid hemorrhage: a potential imaging pitfall associated with diffuse cerebral edema. *AJNR Am J Neuroradiol* 2003;24:254–256.

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