Teaching NeuroImages: Unmasking raccoon eyes
A classic clinical sign

Figure 1  Bilateral periorbital ecchymoses (raccoon eyes)

Figure 2  Head CT

Comminuted fracture of the medial wall of the orbit with hemorrhage protruding into the orbit: (A) bone window, (B) brain window.

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A 65-year-old woman presented with head/facial trauma secondary to seizure. Examination revealed right-sided facial contusions and subconjunctival hemorrhage. Over 24 hours she developed bilateral periorbital ecchymoses: “raccoon eyes” (figure 1). Neuroimaging revealed right orbital fracture with hemorrhage into the orbit (figure 2). There was no basilar skull fracture or Battle sign (mastoid ecchymosis).

Raccoon eyes, a clinical sign most commonly associated with basilar skull fracture, can be seen in unilateral and bilateral orbital fractures. The differential, beyond trauma, includes most commonly metastatic neuroblastoma, Kaposi sarcoma, multiple myeloma, and amyloidosis. Neurologists should be aware of this sign and its differential.

AUTHOR CONTRIBUTIONS
Christopher Tarolli: drafting/revising the manuscript, accepts responsibility for conduct of research and final approval. Michele A. Scully: drafting/revising the manuscript, accepts responsibility for conduct of research and final approval. Andrew D. Smith III: study concept or design, analysis or interpretation of data, accepts responsibility for conduct of research and final approval.

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REFERENCES
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