‘Raccoon eyes’ revisited

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Received: 30 July 2010 / Revised: 24 September 2010 / Accepted: 28 September 2010 / Published online: 13 October 2010
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A 1-year-old boy presented with 5 weeks of periorbital ecchymosis, without associated trauma. Contrast-enhanced head and face CT reveals extensive osseous metastases involving facial bones and skull with spiculated periosteal reaction along the orbital walls (Fig. 1, *arrows*). Subsequent evaluation with iodine-123 metaiodobenzylguanidine (^{123}I -MIBG) (Fig. 2) confirms a right paraspinal neuroblastoma (*arrow*) with widespread tumoral involvement of cortical bone and bone marrow.

Almost 60% of patients with neuroblastoma will have metastases at diagnosis. Periorbital metastases cause proptosis or orbital ecchymosis, resulting in the clinical raccoon-eye appearance. Ophthalmic involvement, reported in 10% to 43% of cases of neuroblastoma, may also manifest as opsoclonus, Horner syndrome, ocular motility defects or blindness [1].

Fig. 1 Coronal CECT of the face, bone windows (CTDI: 22.91 mGy)

Fig. 2 ^{123}I -MIBG scan, anterior view

^{123}I -MIBG imaging, with its high sensitivity and specificity for neuroblastoma, will confirm the diagnosis, facilitate accurate disease staging and allow differentiation from orbital trauma, including that from child abuse, which can also present with raccoon-eye appearance [2].

References

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