

Call in ophthalmologist when abusive head trauma is suspected

July 23, 2018

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Article type: [AAP Clinical Report](#)

Topics: [Child Abuse and Neglect](#), [Ophthalmology](#)

An infant was brought to the emergency department after his mother said she found him unresponsive in his crib. She reported that the baby had started vomiting a few days earlier.

An alert pediatric emergency physician noted what appeared to be a small bruise on the baby's leg, and a CT scan showed subdural and subarachnoid hemorrhages. The medical team ordered an ophthalmology consultation, which revealed too-numerous-to-count sub-, pre- and intraretinal hemorrhages extending to the retinal edge (ora serrata). Child protective services was notified, and the first steps to preventing further abuse had been taken.

This actual case highlights the need to obtain prompt ophthalmology consultation when abusive head trauma is suspected. Ophthalmic manifestations of child abuse are extremely variable, and the eye examination often is an important contributor to child abuse recognition.

The Academy has released an updated clinical report on this topic, *The Eye Examination in the Evaluation of Child Abuse* from the Council on Child Abuse and Neglect and the Section on Ophthalmology, along with the American Association of Certified Orthoptists, the American Association for Pediatric Ophthalmology and Strabismus, and the American Academy of Ophthalmology. The report is available at <https://doi.org/10.1542/peds.2018-1411> and will be published in the August issue of *Pediatrics*.

Ocular manifestations of abuse

Retinal hemorrhages are the most common ocular manifestation of child abuse. They are identified in approximately 75% of infants with abusive head trauma (AHT) when there is evidence of repetitive deceleration injury with or without blunt head impact.

Ophthalmologists should be asked to examine children if AHT is suspected. Such concern arises when there are signs of head injury with or without body injury, such as intracranial hemorrhage. Ocular injury also is a consideration when children present with unexplained alterations of consciousness or unexplained seizures. When identified, retinal hemorrhages often, but not always, indicate child abuse. Like everything else, there is always a differential diagnosis to consider, and findings must be evaluated in their clinical context. The clinical report reviews the strong association of retinal hemorrhages and abuse, especially when the hemorrhages are extensive or involve retinoschisis or retinal folds.

Describing the type, extent and number of retinal hemorrhages is particularly important in generating and refining a differential diagnosis. The report reviews the differential diagnoses, mechanisms and

pathophysiology of retinal hemorrhages and novel “courtroom diagnoses” that are inaccurately proffered to explain retinal findings in cases of AHT.

Inflicted blunt trauma to the eye can result in a number of eye injuries, including periorbital ecchymoses, orbital fractures, subconjunctival hemorrhages, hyphema, corneal abrasion, lacerations and globe rupture. Although these injuries are more commonly the result of accidental injury or other medical diseases, child abuse should always be considered.

Reporting potential abuse

All physicians, including ophthalmologists and other specialists caring for children, are mandated reporters of suspected child abuse. Reports can be made by calling the state’s toll-free child abuse reporting hotline.

Whenever possible, the accompanying parent(s)/guardian(s) should be notified about the concern and the need to report. It can be helpful to raise concern about the finding, while not apportioning blame. One approach is to inform the family that because of the nature and circumstance of the examination findings, further investigation is mandated by law and serves to prevent the child from being injured again should that prove to be the cause of the observed findings.

Dr. Christian, a lead author of the clinical report, is a former chair of the AAP Committee on Child Abuse and Neglect.

Resource

- [For more information on reporting suspected child abuse, see the 2015 AAP clinical report "The Evaluation of Suspected Child Physical Abuse."](#)

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