

# Retinal hemorrhage in child abuse

“In a traumatized child with multiple injuries and inconsistent history, the presence of [retinal hemorrhage](#) is pathognomonic of battering <sup>1)</sup>

However, RH may also occur in the absence of any evidence of [child abuse](#). 16/26 battered children < 3 yrs of age had RH on funduscopy, whereas 1/32 non-battered traumatized children with head injury had RH (the single false positive: traumatic parturition, where the incidence of RH is 15–30%) <sup>2)</sup>

At least in [Japanese children](#), an [infantile acute subdural hematoma](#) was frequently observed not only in nonaccidental but also in accidental injuries. In infants with [head trauma](#), age, the presence of [retinal hemorrhage](#), and the presence of [seizures](#) should be considered when determining whether they were abused. [Subdural hematoma](#) is also a powerful finding to detect abuse, but care should be taken because, in some ethnic groups, such as the [Japanese](#), there are many accidental cases <sup>3)</sup>.

## Differential diagnosis

1. [child abuse](#) (including “[shaken baby syndrome](#)”)
2. [benign subdural effusion](#) in infants
3. acute high altitude sickness
4. acute increase in ICP: e.g. with a severe seizure (may be similar to [Purtscher’s retinopathy](#))
5. [Purtscher’s retinopathy](#) <sup>4)</sup>

<sup>1)</sup>

Meservy CJ, Towbin R, McLaurin RL, et al. Radiographic Characteristics of Skull Fractures Resulting from Child Abuse. AJR. 1987; 149:173–

<sup>2)</sup>

Eisenbrey AB. Retinal Hemorrhage in the Battered Child. Childs Brain. 1979; 5:40–44

<sup>3)</sup>

Akutsu N, Nonaka M, Narisawa A, Kato M, Harada A, Park YS. Infantile subdural hematoma in Japan: A multicenter, retrospective study by the J-HITs (Japanese head injury of infants and toddlers study) group. PLoS One. 2022 Feb 25;17(2):e0264396. doi: 10.1371/journal.pone.0264396. PMID: 35213611.

<sup>4)</sup>

Buckley SA, James B. Purtscher's retinopathy. Postgrad Med J. 1996; 72:409–412

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