G93 Evolution of the Intentional Injury Infant Syndrome in Northern France

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In northern France, child abuse represents a daily preoccupation in forensic medicine. The goal of this presentation is to retrospectively study infants hospitalized for subdural hematoma and examined in the forensic department for suspicion of child abuse.

This presentation will impact the forensic community and/or humanity by showing the importance of child abuse and Intentional Injury Infant Syndrome (IIIS) in northern France.

Patients and Methods: During a 36 month period (January, 1999, to December, 2001), 39 infants aged 1 month to 2 years, hospitalized for subdural hematoma, were examined or autopsied (eight cases). Clinical and paraclinical information was collected.

Results: Intracranial hematoma: 22 subdural hematomas were bilateral, 5 were interhemispheric and 12 were unilateral. Five infants had evidence of different ages of intracranial hematomas and 7 had chronic subdural hematomas. Some infants had associated skull fractures. Severe cerebral edema was present in 8 cases.

Ophtalmoscopic findings: 33/39 cases had abnormal ophtalmoscopic findings. Eighteen cases had retinal hemorrages. Some cases were associated with retinoschisis (3), with other ocular haemorrages (2), and/or with papilledema (3). Retinal haemorrages were absent in six cases.

General examination: 25/39 had evidence of child abuse including bruises (12 cases), soft-tissues injuries (5 cases), rib fractures (6 cases), long bone fractures (2 cases), burns (1 case), bilateral testis injury (1 case), severe denutrition with growth and psychomotor retardation (6 cases).

Risk factors: 19 cases had antecedent evidence of child abuse or neglect in their family. Eighteen were first born and the only child. Thirteen infants had previously been abused; in 1 case, the mother was young (less than 18) and in another one she was psychotic.

Facts: In 11 cases, related facts were a history of shaken baby syndrome; in 8 other cases, the history was not correlated with the observed injuries. In 18 cases, injury mechanism was not explained by the caregivers. In two cases, the caregivers have affirmed that they played with their children.

Neuroimaging: In 27 cases, MRI was performed and was abnormal in all cases. They were compared with results obtained in CT imaging, and standard radiography.

Discussion and Conclusion: Only 33/39 subdural hematomas were associated with retinal hemorrages and determined the classical description of “the shaken baby syndrome.” The absence of a traumatic history or a history not correlated with the clinical signs is a major element for the diagnosis and is highly suggestive of child abuse. Associated injuries observed in 50% cases are also pertinent arguments. The use and the utility of neuroimaging to determine the time of the lesions and their origin is very important and discussed. A specific prevention of the IIIS should be developed in France.

IIIS, Child Abue, Clinical Forensics

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