



### G168 The Shaken Baby Syndrome: How Doctors and Authors Can Support the Indefensible

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After attending this presentation, attendees will recognize Shaken Baby Syndrome, and how it can occur in all socio-professions and economics even when the parents are doctors or if the babies are twins.

This presentation will impact the forensic science community by making attendees aware of Shaken Baby Syndrome because the impossible and unthinkable can happen at any time and in all socio-professional contexts.

Shaken Baby Syndrome is known worldwide. Prevention of Shaken Baby Syndrome is the responsibility of the hospital, private doctors, and the media, but also by information applied to diaper packages and baby formula. The perpetrators are usually in denial or find reasons that are refuted by scientific studies, national or international publications, and by common sense! Thus, the courts are becoming more severe against the perpetrators, even if they take into account family background, profession, social and psychological context.

Lesion descriptions are more and more precise and diagnosis requires very specific and powerful examinations (X-rays, radionuclide bone scanning, CT scan, and RMI) which explore organs such as the brain, the eyes, the skeleton, and the cervical cord. It is sometimes possible to date the injuries if they are multiple and spaced out.

The sad originality of this presentation is to present two cases of shaken babies. Detailed examinations of the lesions were performed in each case.

**Case 1:** A case concerning two-month old twins. It appeared that in the case of the twins, both had severe and multiple injuries from multiple incidences. But lesions were similar with a similar distribution, a comparable chronology, and a similar frequency. These characteristics indicate that the violence was made almost simultaneously in both babies. The progress of both children (each now one-year-old) is currently good, and it is likely that there will be no neurologic complications and abnormalities.

The lesions consisted of:

- bilateral rib fractures
- vertebral compression fractures (dorsal and lumbar)
- forearm bone fractures
- pelvic bone fractures
- lower limb bone fractures
- encephalic hemorrhagic lesions

**Case 2:** A case of a shaken 8-month-old baby who died from his injuries, which occurred within a professional medical family. In this case, the parents initially attributed responsibility to the 14-month-old brother as well as trivial actions such as changing diapers.

The lesions consisted of:

- bilateral retinal hemorrhage
- acute subdural hematoma (SDH) bilateral, 9mm thick
- diffuse cerebral edema major
- scalp contusions
- 40mm non-displaced skull fracture (occipital)

The adult present on site explained that the trauma occurred after a fall from his height (75cm) onto the floor. Both parents are medical practitioners.

After a review of the recent international literature and the consensus conference from the French National Health Authority in May 2011 about shaken baby and child abuse in general, a parallel is drawn between the lesions found in these babies and explanations will be given for this presentation.

In both cases, the first doctors who treated these children either did not agree on the diagnosis or raised the possibility, especially in the second case, that the accidental cause could not be eliminated.

It is obvious that the validity of the forensic hypothesis is dependent on the quality of the health practitioners, the first medical observations, the forensic pathologist experience and photographs. In these cases, the explanations for the injuries were inadequate and discrepant.

If assessment and investigation of suspected Shaken Baby Syndrome is a multidisciplinary task (health professionals, senior forensic pathologist, psychologist, social worker, police investigators, judges), it is necessary that doctors and health professionals that are in contact with children are aware that with the Shaken Baby Syndrome, and after considering all possible alternative explanations, the improbable, the impossible, and the unthinkable can happen at any time and in all socio-professional contexts.

**Shaken Baby Syndrome, Death, Twins**