

# Attribution to abusive head trauma (AHT): Proposal of a check-list

A Laurent-Vannier<sup>1</sup>, C. Adamsbaum<sup>2</sup>, C. Rey-Salmon<sup>3</sup>, E. Vieux<sup>4</sup>

1 Saint Maurice hospitals, 2 Bicêtre hospital APH, 3 Hôtel Dieu hospital APHP, 4 Honorary magistrate. France. 2015 september 17-19. Liverpool. International Conference on Paediatric Acquired Brain Injury.

### Purpose:

- •Because of its consequences in terms of mortality and disability, the attribution is a crucial medico-legal issue.
- •Usually, the main questions the legal expert has to answer are: 'has this baby been shaken?', 'when did the shaking occur?', 'was it a unique episode of shaking or repeated shaking?', and 'what will the consequences of the shaking be?'
- •However, a wide heterogeneity is observed in France, leading to an abnormally large range of attributions.

# Objective:

- •In order to help both non medical professionals (judges, lawyers) and medical experts to improve the homogeneity of the answers to these issues,
- •we propose "step by step" guidelines, including a check-list of items to address.

### Method:

- •This check-list was derived from our experience as legal experts and from:
- •Firstly, an observational retrospective study (1) conducted by two of the authors, as legal experts, over a 7-year period amongst 112 patients diagnosed with AHT, in 39 French courts for forensic investigation. This study aimed to correlate 29 legal statements by perpetrators with medical documentation, in order to offer insights into the mechanisms of injury.
- •Secondly, a experts conference (2, 3) devoted to the diagnosis of the AHT with suggested diagnostic criteria based on the infant's clinical history and objective lesions. The results of this public commission, organised by the French Society of Physical and Rehabilitation Medicine, was validated by the French National Authority for Health (HAS).

#### Results:

- •The check-list includes the followings:
  - •Firstly, the expert needs to become familiar with the guidelines published by the HAS.
- •All of the information collected and considered, from the emergency unit to the medical and forensic investigations, must be exhaustively listed.
- •The medical history has to be described with peculiar attention to the child's status from birth; the occurrence of sudden or progressive changes in behaviour, including the specific time at which the baby was no longer described as having normal behaviour; the compatibility of the history with both intracranial lesions and child's age; the delay in seeking medical assistance.
- A radiological expert's analysis must be conducted on each of the imaging data the child underwent.
- •Both technique and results of the ophthalmological examination must be described.
- •Any history of prior traumatism of the child, siblings or other children in the same environment thought to be at risk, has to be exhaustively investigated.
- •The discussion must take into account the diagnostic criteria set by the French National Authority for Health.
- •The timing of the lesions must be discussed according to both clinical and radiological data.

### Discussion and conclusion:

This check-list should actually help to standardize procedures and attributions to AHT and thereby to conduct both prospective and retrospective studies.

The second step will be to assess the application of such guidelines.

# Bibliography:

- 1- Abusive head trauma: judicial admissions highlight violent and repetitive shaking. Catherine Adamsbaum, Sophie Grabar, Nathalie Mejean, Caroline Rey-Salmon, Pediatrics 2010, 126, 546-55.
- 2- A public hearing "Shaken baby syndrome: Guidelines on establishing a robust diagnosis and the procedures to be adopted by healthcare and social services staff". Guidelines issued by the Hearing Commission. Laurent-Vannier A., Nathanson M., Quiriau F. et al. Annals of Physical and Rehabilitation Medicine 2011; 54: 600-625.