

Reply to Bilo et al.

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Dear Editor,

We thank Bilo et al. [1] for commenting on our paper, “Dating the abusive head trauma episode and perpetrator statements: key points for imaging” [2].

Indeed, the interpretation of clinical and/or imaging data is not an exact science. This is especially true in the field of abuse, and medical doctors have to deal with this limitation in the courts. We fully agree that it’s important not to overinterpret radiologic patterns. In the paper’s abstract, we stressed the need to analyze all of the medical data to obtain accurate information on the date and repetition of the trauma [2]: “*Brain imaging provides strong indicators of ‘age-different’ injuries but the ranges for dating the causal event are wide. The density pattern in a single subdural hematoma location provides no reliable clues for assessing repeated violence. Only the finding of different density in two distant subdural hematomas argues in favor of ‘age-different’ injuries, i.e. repeated violence. MRI is difficult to interpret in terms of dating subdural hemorrhages and must be analyzed in conjunction with CT. Most important-*

ly, all of the child’s previous clinical and radiological data must be carefully studied and correlated to provide accurate information on the date and repetition of the trauma.”

It is important to note that experts in France are completely independent of all parties – the prosecution, the judiciary, and the child, family, caretakers, etc. This context offers a unique opportunity to compare the medical findings with the perpetrator’s admissions to the legal authorities, thereby getting a better understanding of exactly what happens in abusive head trauma [3]. It may also explain some of the discrepancies with previously published data.

We appreciate this opportunity to reiterate our belief that the finding of frankly different densities in two widely separated subdural hematomas should be considered an argument, albeit nonspecific, for time-different injuries. We also maintain that it is essential to look for other features of time-different injuries and to interpret this radiologic pattern in conjunction with other arguments – for example, previous events reported by the parents and caregivers (vomiting without diarrhea and/or unexplained bruises) and, of course, skeletal injuries. In addition, a sudden unexplained increase in head circumference in the weeks or months prior to admission is also an indicator of previous subdural hematoma (see Fig. 4 in [2]). These arguments are not only legal issues in the courts, but also key diagnostic signs of abusive head trauma.

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