

## Authors' Response

Sir,

In his letter, Dr. Galaznik stated that in light of new research, the American Academy of Ophthalmology (AAO) could no longer sustain its previously held positions on eye findings and allegations of shaken baby syndrome (SBS). On the contrary, a clinical statement on SBS can be found on the website of the AAO, posted in February 2008 (1). In this clinical statement, we can read "A unique complex of ocular, intracranial, and sometimes other injuries occur in infants who have been abused by violent shaking. (...) Intracranial injury in shaken infants almost always includes subdural hematoma, typically bilateral over the cerebral convexities or in the interhemispheric fissure. (...) These findings are thought to result from repetitive abrupt deceleration of the child's head as it whiplashes back and forth during the shaking episode. Some authorities, citing the frequency with which SBS victims also show evidence of having received blows on the head think that impact is an essential component. Displacement of the brain in relation to the skull and dura mater ruptures bridging vessels and compression against the cranial bones produces further damage. (...) The most common ocular manifestation of shaking injury present in a large majority of cases is retinal hemorrhage."

This new research that Dr. Galaznik is claiming to have changed everything is the pig model of Binenbaum et al. (2). To study brain and retinal injury mechanisms in abusive head injury, animal models have been developed, with shaking of mice, rats, cats, and pigs (2-5). These models did not reproduce the retinal hemorrhage of the SBS or the shaken-impact baby syndrome (2,5). However, as clearly stated in Sarbanescu et al. (5), this does not necessarily mean that acceleration-deceleration forces are not implicated in nonaccidental head injury. This simply means that those animal shaking models are not a complete mimic of the human counterpart.

Also mentioned by Dr. Galaznik as revolutionary new research are observations of football players (6). Though interesting, this study is of no help in the comprehension of SBS as it is well known that the young child head is not simply a smaller version of the adult head (7). Several factors predispose the head of young children to shaking injuries: the disproportionately large and heavy head, the relatively weak neck musculature, the pliability of the skull, the large subarachnoid space, the incomplete myelination, and the high water content of the infantile brain (7).

Dr. Galaznik is suggesting that the American Academy of Pediatrics (AAP) has now doubts about the validity of the SBS. Nothing of that sort can be found on the website or publications of the AAP, nor

the publications of the Committee on Child Abuse and Neglect or its members. On the contrary, Dr. Christian, a member of this latter Committee, recently stated to the press that the AAP recognizes SBS as a "serious and clearly definable form of child abuse." She also added that "a small but vocal group of doctors do not believe that it is possible to cause injuries by shaking," however, "most pediatricians agree that it causes severe injury and even death" (8).

Dr. Galaznik mentioned at large all the letters he sent to various experts and organizations, including the AAP Committee on Child Abuse and Neglect and the AAO. He may write as many letters as he wants, but this will not change the core science on SBS. It will only be a proof that he belongs to a small but vocal group of dissidents.

## References

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