Retinal haemorrhages not always sign of child abuse

Physicians must be cautious in viewing eye exams as a reliable way to prove or disprove child abuse, a recent study suggests.

"Some people believe in the specificity of retinal haemorrhages to the point that it has almost become a cult. Having retinal haemorrhages is not diagnostic of abuse, any more than the absence of retinal haemorrhages proves that a child was not abused," Patrick E Lantz MD, a forensic pathologist at Wake Forest University Baptist Medical Center in North Carolina, told EuroTimes.

In a recent study, Dr Lantz and colleague Constance A Stanton MD, a neuropathologist, found that the number of non-abuse cases with retinal haemorrhages actually outnumbers the ones with abuse. The study involved examining the eyes of 700 deceased individuals, ranging in age from newborn to 96 years of age, between June 2004 and January 2006. He presented their results at the 58th annual meeting of the American Academy of Forensic Sciences in Seattle.

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The technique of postmortem monocular indirect ophthalmoscopy permits visualisation of the fundus after death by using an aspheric condensing lens and an inexpensive headlamp. The technique of postmortem monocular indirect ophthalmoscopy permits visualisation of the fundus after death by using an aspheric condensing lens and an inexpensive headlamp.

Aerial image of a fundus with retinal haemorrhages obtained by postmortem monocular indirect ophthalmoscopy.

"Some of these studies actually used the presence of retinal haemorrhages to classify abuse," he said. Dr Lantz published an account of the case, along with a report on the shakiness of the literature, in BMJ (March 27, 2004;328:754-756).

"The problem is if abuse is suspected, almost all of the children have their eyes examined. If abuse is not suspected, nobody looks in the back of the eyes."

No easy answers

Dr Lantz said that some physicians are under the impression that even if retinal haemorrhages in general are not diagnostic of child abuse, certain types are, such as those that affect all the layers of the eye. But he said that he’s seen several cases of retinal haemorrhages from accidents and natural diseases that involved all the layers.

He hypothesised that some people were resistant to changing their beliefs because they “want an easy button” instead of investigating all the facts of an individual case, and admitting that sometimes there’s no clear answer.

Dr Lantz said he hopes that his work will cause forensic pathologists, paediatricians and ophthalmologists to stop viewing specific retinal injuries as diagnostic of abuse, and that more people will look for evidence of retinal haemorrhages in other cases of accidents and natural diseases.

Gill Adams

Revon Schuyler

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plzant@wfubmc.edu

gill.adams@blueyonder.co.uk