

Brain study casts doubt on shaken baby death cases

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EVEN very gentle shaking could kill a baby, according to the largest and most detailed study yet of the brains of infants who died in suspicious circumstances.

The British study found that "rough handling" could be sufficient to damage nerve fibres in the neck area that controlled breathing, leading to brain swelling characteristic of violent shaking.

The research, published in New Scientist, challenges the widely held view that only extreme violence causes shaken baby syndrome and calls into question the scientific evidence behind many convictions for killing infants. It could open the way for a wave of appeals.

John Binns, a criminal defence solicitor with Victor Lissack & Roscoe of London, said in future it might be impossible for a prosecution to succeed unless the evidence was indisputable. Mr Binns said: "Unless it is certain that injuries were caused by gross negligence or worse, the judge will direct the jury to acquit."

The case against Louise Woodward, the British nanny convicted of murder for shaking a baby to death in America, would probably have been seriously weakened by the findings. Miss Woodward's conviction - [reduced to involuntary manslaughter on appeal](#) - relied on the prosecutor demonstrating and proving that Miss Woodward had shaken eight-month-old Matthew Eappen with all her might for up to a minute.

The study was led by Jennian Geddes, a neuropathologist at the Royal London Hospital. Her team examined the brains of 53 children, 37 of whom were less than a year old, suspected of dying from deliberate head injuries. The brains had been removed under coroner's orders. The researchers found that very few had suffered diffuse axonal injury, a type of traumatic widespread brain damage seen in victims of high-speed road accidents or falls from great heights.

It had been believed that diffuse axonal injury could occur only if severe force was applied. The findings indicated that this assumption was wrong. Dr Geddes found that 37 had died because they stopped breathing, probably because mild shaking could damage nerve fibres in the neck area that controlled breathing.

The lack of oxygen would make the brain swell dramatically, showing the kind of damage previously blamed on violent shaking. Very young babies were particularly vulnerable because their neck muscles were weak and their heads relatively large and heavy.

Dr Geddes said normal interactions between mother and child would not be sufficient to cause such injuries. "But you could imagine scenarios that might produce the damage without it being deliberate," she said.