

Shaken baby syndrome disputed

Defender tells babysitter's trial the condition can't be proven

By Sue Yanagisawa
Whig-Standard Staff Writer

DEFENCE LAWYER PETER KEMP continued to suggest yesterday, during his questioning of the Crown's second expert medical witness, that "shaken baby syndrome" is unprovable.

The diagnosis, he said, is accepted more by pediatric specialists than the scientific world as a whole.

But Dr. Richard van Wylick, a pediatric specialist and medical director of the child protection team at Kingston General and Hotel Dieu hospitals, stood by his finding.

The doctor told Superior Court Justice Helen MacLeod that he arrived at his diagnosis based on the brain injury sustained by 22-month-old Brody Albert, a pattern of bleeding and damage in the deep structures of the child's eyes and his assessment that an accidental fall down stairs was inconsistent with the damage he was seeing.

The toddler's babysitter, Cheryl Ann Larsen, 33, is on trial for manslaughter in his December 2002 death. She has pleaded not guilty.

Crown attorney Bruce Griffith and assistant Crown attorney Laurie Lestelle are prosecuting the case. They contend that Brody was shaken so violently it caused bleeding between the membranes lining his skull and a subsequent cascade of medical problems that claimed his life.

Court has been told that, in his post-operative report, the surgeon who removed part of the right side of Brody's skull on Dec. 6, 2002, described the combination of pooled and clotted blood he found underneath as an "extremely high-pressure subdural hematoma."



Ian MacAlpine/The Whig-Standard

Cheryl Ann Larsen arrives for the fourth day of her manslaughter trial at the Frontenac County Court House yesterday morning

Reciting at length from articles published in medical and other scientific journals, Kemp asked Van Wylick about different fall scenarios. The pediatrician agreed he'd expect significantly more injury in a child who fell four feet straight down than one who fell down stairs a distance of four feet. But he told Kemp that that's part of the assessment - determining whether the injuries match the story of how they occurred.

In Brody's case, Larsen told paramedics and the toddler's parents that he fell down part of a flight of 11 to 13 carpeted stairs, depending on whether the landing and floor were counted.

Griffith, in his opening statement to the court, said Larsen subsequently told police the boy was potty raining and she'd put him in the main floor bathroom and gone to check the e-mail on her computer in the basement. She

looked up, according to that account, and saw Brody at the top of the stairs holding his pants in one hand just before he stumbled and fell.

Brody's mother, Julie Albert, recalled in testimony earlier this week that when she asked Larsen at the hospital what had happened, she "indicated she should not have started potty training so early."

Julie Albert told the court the timing of toilet training Brody was Larsen's idea. Brody being her first and at that time only child, she said she deferred to Larsen's experience, since her babysitter was the mother of three boys.

One of the paramedics who worked on the unconscious toddler at Larsen's Pembridge Drive home that morning testified that they found him on the main floor of the house, lying on the carpet wearing only a diaper. The boy's father, Steve Albert, also recalled see-

ing him wheeled into hospital on a gurney wearing only his diaper.

William Hay, a former identification officer with Kingston Police, now working for Fire and Rescue Services, testified that he seized a number of items from the Larsen home four days after Brody's death, among them a pair of light-blue corduroy pants he found folded in a portable crib in the master bedroom. Brody's mother testified that she'd dressed her son in blue corduroy pants and a green and white sweater with a truck on the front that last morning before she dropped him off at Larsen's house.

Under questioning by Kemp, van Wylick estimated he's had 20 to 25 cases of suspected shaken baby syndrome referred to him in the time he's worked with the child protection team. He diagnosed the syndrome "in the range of six or seven" of those cases, including this one. In at least two of those cases - "I think there was a third" - the child died, he said.

Doctors who examined Brody found no bruising or broken bones, but van Wylick told the court there wouldn't have to be bruising or broken bones if the boy had been injured during a violent shaking.

Kemp pressed the pediatric specialist, pointing out that some non-medical researchers contend it's impossible to cause the brain injuries attributed to shaken baby syndrome by shaking alone.

Citing published articles, he asked the doctor about the position some have taken that there would have to be a high-impact event, such as a child being thrown against an unyielding surface.

The doctor agreed that some researchers in biomechanics "are questioning this diagnosis." He told Kemp, "I can't speak to the biomechanics," and added, "It certainly is a serious question."

But van Wylick said that for obvious moral reasons, it's impossible to conduct the kind of empirical research that would end the medical debate.

Experts stand by shaken baby theory in babysitter trial

By Sue Yanagisawa
Whig-Standard Staff Writer

THE MAIN WEAKNESS IN SCIENTIFIC calculations purporting to challenge the mechanics of shaken baby syndrome is that researchers can't replicate the complexities of a human brain, an expert testified yesterday.

Dr. Jean Michaud, a professor of neuropathology at the University of Ottawa and chairman of neuropathology and laboratory medicine at Ottawa Hospital and the Children's Hospital of Eastern Ontario, gave evidence yesterday at the manslaughter trial of Cheryl Ann Larsen, 33.

Larsen is accused of causing the death of 22-month-old Brody Albert in December 2002 - allegedly by shaking him so violently that his brain was injured. She has pleaded not guilty.

A mother of three young boys, Larsen was babysitting Brody for about an hour on Dec. 6, 2002, when she called 911. Paramedics arrived to find the toddler unconscious and were told the boy had fallen down a carpeted flight of steps into the finished basement of Larsen's Pembroke Drive home.

However, a series of doctors who became involved in his case, including Michaud and Dr. Blair Carpenter - the pediatric pathologist who conducted Brody's autopsy and who also testified yesterday - all diagnosed his injuries as consistent with shaken baby syndrome.

Lawyer Peter Kemp, who's part of Larsen's defence team, has grilled all the Crown's medical experts, confronting them with opposing opinions based on biomechanics. He has, in effect, put their diagnosis on trial, suggesting that there's substantial doubt outside the medical community that shaken baby syndrome is scientifically provable.

Michaud admitted "there are controversies in this area, because we're dealing only with the outcome."

He rejected Kemp's suggestion that doctors don't accept the conclusions of investigators in the field of biomechanics because they don't understand the physics.



LARSEN: Plead not guilty

The pediatric pathologist, Dr. Carpenter, testified that children seldom suffer whiplash neck injuries in car accidents and even adults who receive fatal brain injury in collisions "don't always have a cervical lesion that can be seen on autopsy."

Kemp asked Carpenter if it was possible that Brody's brain injury could have been caused by falling backwards down a flight of stairs. The pathologist agreed that, depending on how the boy fell, "it's clinically possible [but] I personally don't think so."

"Anything is possible, but not likely."

The theory behind shaken baby syndrome, as it's been explained in court, is that violently shaking a very young child causes a damaging rotation inside his skull. The resulting movement appears to shear and tear delicate blood vessels and the bleeding that results can either kill the child or leave permanent damage.

All the doctors have testified that in making their diagnosis they've relied on a variety of features, including: the bleeding inside Brody's skull; distinctive patterns of bleeding in the deep structures of his eyes; microscopic changes and damage to nerve fibres in his brain; and an oral explanation for the damage at odds with their clinical experience and the medical literature.

"I just have a hard time accepting all

MD rejects theory of shaken baby syndrome

By Sue Yanagisawa
Whig-Standard Staff Writer

THERE'S NO SUCH THING AS SHAKEN BABY syndrome, a Minnesota doctor testified yesterday as an expert witness at the manslaughter trial of Cheryl Ann Larsen.

Dr. John J. Plunkett is an assistant coroner and a pathologist at Regina Hospital in Hastings, Minn. He's considered an expert in anatomic, clinical and forensic pathology. He told the court that his opinion is based on his understanding of anatomy and biomechanics.

Plunkett has no formal accreditation, however, in either physics or biomechanics.

Under questioning by assistant Crown attorney

Laurie Lecelle, he said that, as part of his interest in the dynamics of head injuries, he refreshed himself on the biomechanics he'd learned in college, educated himself on the literature, and then expanded his knowledge through extensive conversations with biomechanical engineers.

Lecelle asked him why he'd never sought formal training in the field.

"I'm 57 years old," Plunkett replied. "I don't need to go to college to learn this."

Plunkett was the first witness called by defence lawyers Peter Kemp and Clyde Smith to counter the Crown's theory that 23-month-old Brody Albert suffered fatal brain injuries in December 2002 as a result of being violently shaken by Larsen, the boy's babysitter.

Larsen, 33, a mother of three, is on trial before Superior Court Justice Helen MacLeod for manslaughter in the toddler's death. She pleaded not guilty.

She did admit, in interview with Kingston Police Det.-Sgt. Carolyn Rice, that she briefly shook Brody on the morning of Dec. 6, 2002. But she maintained it was only after the boy had fallen down the basement stairs of her Pembridge Crescent home. She said she refused to believe she'd

treatment and autopsy noted only the collection of blood, known as medically as edema, inside the boy's skull. The scalp edema, he said, was recorded by the pediatric specialist who examined Brody after surgery had removed part of the toddler's skull to accommodate his brain swelling. However, it appeared not to have been observed by the nurse who shaved him before surgery.

Plunkett said this was clear evidence of impact with a relatively flat and resistant surface and agreed under questioning by Kemp that both the superficial scalp injury and the underlying brain injury could have been caused by a fall down stairs - a position contrary to that taken by all of the medical experts who testified before him.

Plunkett also contradicted his colleagues about the cause of specific damage and changes found under microscopic examination in the deep structures of the toddler's eyes and brain. The doctors who testified earlier said those microscopic changes in the tissues were evidence of rotational force being applied to Brody's brain and pointed to shaken baby syndrome. Plunkett said those changes were simply part of a cascade of events that stemmed from uncontrolled swelling in the toddler's brain and ensuing oxygen deprivation.

"The blood flow to his brain had stopped. He was brain dead - because of swelling," he told the court.

Plunkett said the force that can be generated by an adult shaking a 23-pound child would be at most one gravity. He said it would take more than 100 Gs of force to cause the brain injury Brody suffered and suggested that kind of shaking would virtually decapitate a small child.

Under questioning by Lecelle, the doctor agreed his analysis was directed only at the mechanics of the boy's injuries. He said he had no way of telling whether the impact he believes the boy suffered was accidental or intentional.

Plunkett said most pediatricians disagree with his stance on shaken baby syndrome, but claimed most forensic pathologists and doctors with credentials in biomechanics are in his camp.

When Lecelle challenged him to provide proof of that, Plunkett said: "From the people I have spoken to, and I have spoken to many many people in forensic pathology, it is the dominant view today."

Pediatricians who say that shaking can kill



LARSEN

Crown's final witness testifies toddler died as result of abuse

Prosecution produces sixth expert to testify in babysitter's trial

By Sue Yanagisawa
Whig-Standard Staff Writer

THE CROWN'S FINAL WITNESS AT THE manslaughter trial of Cheryl Larsen testified yesterday, but only after Justice Helen MacLeod granted the Crown leave to use a sixth expert in prosecuting the case.

Under the Canada Evidence Act, both sides in a trial are limited to five expert witnesses who can offer opinion evidence to the court unless leave is granted by the presiding judge.

Defence lawyer Peter Kemp complained that he and co-counsel Clyde Smith had only received Dr. Alex Levin's report 15 days before trial, instead of the usual 30, and that Levin, a pediatric ophthalmologist and consultant to the suspected child-abuse team at Sick Children's Hospital in Toronto, would add nothing new to the evidence.

"We've talked about retinal hemorrhages [bleeding in the eye]" at length, he told the judge, "and this is one more witness who is going to talk about retinal hemorrhages."

Assistant Crown attorney Laurie Lecelle argued, however, that the Crown had no choice in presenting the five experts who testified before Dr. Levin. They had all been directly involved in the investigation into the death of 22-month-old Brody Albert.

Lecelle noted, for example, that there were three pathologists involved in the boy's autopsy.

"That was not at the request of police or the Crown, that was simply what was done" at the Children's Hospital of Eastern Ontario (CHEO), she said.

In granting leave for the Crown to call Levin, MacLeod invited the defence lawyers, if they felt they needed it, to request additional time to prepare before questioning him.

Kemp opted to go ahead without any



LARSEN: Crown wraps up case

adjournment, however, and quickly engaged in a verbal sparring match with the doctor, who was unequivocal in his opinion that "Brody is a victim of the shaken baby syndrome."

Levin was asked by the Crown to review the toddler's medical records, the reports of the various doctors who examined and treated him, the results of his autopsy, a small portion of Cheryl Larsen's videotaped interview - in which she demonstrated briefly shaking Brody - and eventually the slides from a microscopic post-mortem examination of the boy's eyes.

Based on that material, Levin told the court he had little doubt that "he's got the prototypical classic eye that we see in shaken baby." Levin testified that the folding of tissues deep inside Brody's eyes is "specific" to shaken baby syndrome, as is a particular type of split or cleft hemorrhage first identified by Dr. Seymour Brownstein, the ocular pathologist at CHEO in Ottawa who examined Brody's eyes.

Levin agreed with Kemp that the toddler died as a result of damage to his brain, which Kemp suggested could have been caused by a short fall down his client's stairs. Levin didn't dispute

the possibility of a fall or some other impact, but felt there had to have been some forceful shaking, as well.

It was that shaking, he said, that created the "shearing and tension forces" to which earlier doctors have attributed the bleeding in Brody's brain. And Levin said those same forces are reflected in the extensive and distinct pattern of bleeding and other damage found in Brody's eyes.

At one point, Kemp challenged Levin to quantify the force that would have been necessary to cause the boy's injuries. "The kid is dead; that's massive injuries and those injuries take extreme force," Levin told him.

According to the doctor, the most common causes of bleeding in the eyes of children are birth and shaken baby syndrome. He estimated that Sick Children's Hospital in Toronto sees 20 to 40 kids a year with retinal hemorrhages from one cause or the other and about 10 to 15 of those are victims of shaken baby syndrome.

Kemp confronted Levin with the same published articles he presented to the other medical experts earlier in the trial and suggested to the doctor that they demonstrate skepticism about shaken baby syndrome in at least part of the scientific community.

Kemp - quoting from one of the articles - suggested to Levin that it's dangerous to diagnose shaken baby syndrome on the basis of pathology alone because it could result in cases of accidental injury being labelled child abuse.

"It doesn't require a confession to make the diagnosis," Levin told him.

The trial continues today at 10 a.m. in the Frontenac County Court House with the first of the defence witnesses.

kitchen
STOCK™

MD rejects theory of shaken baby syndrome

By Sue Yanagisawa
Whig-Standard Staff Writer

THERE'S NO SUCH THING AS SHAKEN BABY syndrome, a Minnesota doctor testified yesterday as an expert witness at the manslaughter trial of Cheryl Ann Larsen.

Dr. John J. Plunkett is an assistant coroner and a pathologist at Regina Hospital in Hastings, Minn. He's considered an expert in anatomic, clinical and forensic pathology. He told the court that his opinion is based on his understanding of anatomy and biomechanics.

Plunkett has no formal accreditation, however, in either physics or biomechanics.

Under questioning by assistant Crown attorney

Laurie Lecelle, he said that, as part of his interest in the dynamics of head injuries, he refreshed himself on the biomechanics he'd learned in college, educated himself on the literature, and then expanded his knowledge through extensive conversations with biomechanical engineers.

Lecelle asked him why he'd never sought formal training in the field.

"I'm 57 years old," Plunkett replied. "I don't need to go to college to learn this."

Plunkett was the first witness called by defence lawyers Peter Kemp and Clyde Smith to counter the Crown's theory that 22-month-old Brody Albert suffered fatal brain injuries in December 2002 as a result of being violently shaken by Larsen, the boy's babysitter.

Larsen, 33, a mother of three, is on trial before Superior Court Justice Helen MacLeod for manslaughter in the toddler's death. She pleaded not guilty.

She did admit, in interview with Kingston Police Det.-Sgt. Carolyn Rice, that she briefly shook Brody on the morning of Dec. 6, 2002. But she maintained it was only after the boy had fallen down the basement stairs of her Pembridge Crescent home. She said she refused to believe she'd shaken him hard enough to hurt him.

A videotape of that interview, conducted a day after the incident, was played for the court this week. It included a demonstration by Larsen in which she used a pink, plush frog to show how she picked up Brody from his fall and gave him a couple of short shakes before laying him down.

"I've never hurt anyone in my whole life."

Plunkett was provided with all of the medical and autopsy reports on Brody prior to testifying and concluded that the boy's brain injury wasn't caused by shaking, as other medical experts told the court.

treatment and autopsy noted only the collection of blood, known as medically as edema, inside the boy's skull. The scalp edema, he said, was recorded by the pediatric specialist who examined Brody after surgery had removed part of the toddler's skull to accommodate his brain swelling. However, it appeared not to have been observed by the nurse who shaved him before surgery.

Plunkett said this was clear evidence of impact with a relatively flat and resistant surface and agreed under questioning by Kemp that both the superficial scalp injury and the underlying brain injury could have been caused by a fall down stairs - a position contrary to that taken by all of the medical experts who testified before him.

Plunkett also contradicted his colleagues about the cause of specific damage and changes found under microscopic examination in the deep structures of the toddler's eyes and brain. The doctors who testified earlier said those microscopic changes in the tissues were evidence of rotational force being applied to Brody's brain and pointed to shaken baby syndrome. Plunkett said those changes were simply part of a cascade of events that stemmed from uncontrolled swelling in the toddler's brain and ensuing oxygen deprivation.

"The blood flow to his brain had stopped. He was brain dead - because of swelling," he told the court.

Plunkett said the force that can be generated by an adult shaking a 23-pound child would be at most one gravity. He said it would take more than 100 Gs of force to cause the brain injury Brody suffered and suggested that kind of shaking would virtually decapitate a small child.

Under questioning by Lecelle, the doctor agreed his analysis was directed only at the mechanics of the boy's injuries. He said he had no way of telling whether the impact he believes the boy suffered was accidental or intentional.

Plunkett said most pediatricians disagree with his stance on shaken baby syndrome, but claimed most forensic pathologists and doctors with credentials in biomechanics are in his camp.

When Lecelle challenged him to provide proof of that, Plunkett said: "From the people I have spoken to, and I have spoken to many, many people in forensic pathology, it is the dominant view today."

Pediatricians who say that shaking can kill children, he said, are taking a position that violates the laws of physics.

If shaken baby syndrome can't exist, Lecelle asked how Plunkett accounts for the confessions of people who have admitted causing serious and even fatal brain injuries in small children by shaking them violently.

"In my opinion, confessions have no role in validating scientific theory," Plunkett said.

He admitted, though, he's been involved in cases where there's been an eventual admission of shaking, contrary to his diagnosis.



LARSEN