INQUEST INTO THE DEATH OF:
LANA DALE LEWIS

Details

Name of Deceased:	Lana Dale Lewis
Date of Death:	September 12, 1996
Place of Death:	Queensway General Hospital
Cause of Death:	Stroke-Thrombosis of left vertebral artery with occipital & cerebellar infarction
By what means:	Accident
Age of Deceased:	45
Location of Inquest:	Toronto
Date of Inquest	April 22, 2002-January 16, 2004
Release date of Verdict:	January 16, 2004

Key Recommendations of Note for Hospitals

The jury made several recommendations. Although not all of the recommendations are directed at hospitals, they may still be of interest.

The jury recommended:

1. Based on the lack of available statistics and reliable studies, that the Ministry of Health in conjunction with the Canadian Memorial Chiropractic College and Canadian Chiropractic Association provide funding for a well designed level 3 retrospective case control study to assess the relationship, if any, between high neck manipulation and stroke/injury and/or serious complications. Funding for this type of research should be contingent on a) high quality research design with input from a clinical epidemiologist, and b) cooperation between the medical and chiropractic communities in the design and conduct of the study.

2. That practitioners (including chiropractors, physiotherapists and physicians/surgeons) prior to performing high neck manipulation obtain informed consent for an individual treatment, or a course of treatment. The patient must also be provided with an information sheet outlining the possible risk of stroke and/or injury, with instructions for the patient about all symptoms that should result in them seeking further advice fro their practitioner or presenting to an emergency department. In addition, the informed consent should also include a section where the practitioner discusses with the patient the taking of x-rays if the treatment involves any spinal manipulations. In the event that the patient refuses to take an x-ray, the patient must sign specifying that the subject of x-rays has been discussed and they have refused.

3. That practitioners (including chiropractors, physiotherapists, and physicians/surgeons) be informed by their respective regulatory bodies that provocative testing (prior to performing high neck manipulation) has not been demonstrated to be of benefit and should not be performed. Universities and Colleges teaching high neck manipulation should also be teaching their students that these tests have not been demonstrated to be of benefit and should not be performed.

Key Recommendations of Note for Hospitals (cont'd)

4. To foster an improved relationship between chiropractic and medical community that a committee be established made up of representatives of the chiropractic and medical professions, to promote a constructive dialogue and sharing of information between the professions to increase understanding and interaction between the profession for the purpose of delivering the best health care to the public.

5. As a result of discrepancies and disagreement regarding the handling of tissue/samples that a) the Coroner's Office confirm and remind its employees and agents of its policies regarding the safe handling and storage of tissues. Also, that organs being harvested for transplantation from potential Coroner's cases should be examined using the appropriate imaging technology and findings of such tests be maintained by the Coroner's Office and considered in the autopsy report; b) the Coroner's Office shall inform experts and parties to an inquest immediately if there has been a loss of spoliation of tissue; and c) if additional tissues are required by parties outside the Coroner's office that the Coroner's consent is first given prior to the cutting and that all parties are advised immediately of additional slides. Also, that the party cutting additional slides follow the protocol of the Coroner's office in labeling the subsequent slides.

6. That the Coroner's Office require its employees and agents who perform autopsies examine all relevant tissues and information prior to proffering an option as to the cause of death of writing reports

7. In order to avoid the family feeling kept out of the loop that the Coroner's Office adopt a policy that for any death investigation a written report detailing the findings be sent to the next-of-kin in a timely manner. If requested by family, the Coroner's Office should attempt to accommodate a meeting with the family if there are any outstanding concerns.

8. In order to avoid any reflection of impropriety on the part of the Coroner's Office, should a meeting take place between the Coroner's Office and parties with a vested interest, that the family be made aware of a meeting and be given the option of attendance. If such a meeting takes place, minutes of the meeting should be recorded.

9. That the seal of the Coroner's Office be used for government business and not as a personal letter head, for example, Curriculum Vitae.

10. That a standard of practice be established for record keeping which requires the type and specific location of the manipulation performed on patients be a necessary part of chiropractic records. If the technique used is a "named" technique, it should be identified as such. If it is a variation, it must be described sufficiently so that other health care practitioners can identify exactly what procedure was used.

11. That the Ontario Ministry of Health look into the possibility of establishing an internal database whereby chiropractors, doctors, hospitals, physiotherapists, the Coroner's office and other health practitioners report cervical manipulations. A separate section of the database should be created to report adverse events such as, but not limited to, stroke, transient ischemic attaches, "injury"-pain lasting more than one week in duration, paralysis, dissections/injury to vertebral arteries and symptoms such as dizziness, nausea, and sensory disturbances including sudden change in visual acuity.

12. That any OHIP billings from practitioners of cervical manipulation should include a) identification of the actual location of manipulation and technique used and b) the condition for which the treatment is being provided. If recommendation (above) is found to be feasible then this information should also be fed into that database.

Key Recommendations of Note for Hospitals (cont'd)

13. Based on a review of the Clinical Guidelines for Chiropractic Practice in Canada, that the chiropractic professional associations, teaching facilities, and regulatory colleges, ensure all of their members maintain their skills by taking mandatory upgrade course.

14. That is may be helpful if a patient after receiving a high neck manipulation remain in the practitioner's care for an appropriate period of time prior to leaving the practitioner's facilities. By doing so, this may allow the patient to advise the practitioner of any abnormalities or disturbances.

15. Based on the age of the Clinical Guidelines fro Chiropractic Practice in Canada submitted into evidence, that the Clinical Guidelines for Chiropractic Practice in Canada be upgraded biennially in order to keep practicing chiropractors current.

16. Another step to fostering the relationship between doctors and chiropractors that, in instances where there may be a patient health concern, there be communication between the patient's family doctor and chiropractor in order to allow the chiropractor a better understanding of the patient's health prior to proceeding with the treatment or course of treatment.

17. Based on the lack of available statistics and reliable studies, that the Ministry of Health in conjunction with the Canadian Memorial Chiropractic College and the Canadian Chiropractic Association consider working with the Canadian Stroke Consortium when the parameters have been established for a well designed level 3 retrospective case control study to assess the relationship, if any, between high neck manipulation and stroke/injury and/or serious complications.

Summary

Ms. Lewis presented at the Emergency department of the Queensway General Hospital in Etobicoke, on September 1, 1996 with complaints of headache, disorientation, and imbalance. She was assessed and investigated and diagnosed as having suffered a posterior circulation stroke. She complained of neck pain at times during her admission to the hospital. An angiogram revealed that Ms. Lewis had a thrombotic occlusion of her left vertebral artery. She was anticoagulated and subsequently discharged from the hospital on September 6, 1996 with follow up by her family physician.

On September 10, 1996, Ms. Lewis returned to the Queensway General Hospital with nausea, vomiting, and headache. She was readmitted and assessed. The assessment revealed she had suffered further neurologic damage (stroke). On September 11, 1996, she was discovered by nursing staff to be pulseless. She was resuscitated from this cardiopulmonary arrest and admitted to the intensive care unit. Further assessment and investigation led to the pronouncement of neurological death on September 12, 1996. Organs were removed for transplantation; the heart was removed but was not transplanted, and subsequently destroyed without postmortem examination.

Evidence was heard at the inquest that Ms. Lewis died as a result of complications of a posterior circulation thromboembolic stroke with thromboemboli originating in the vertebro-basilar system. Conflicting evidence was heard at the inquest as to whether the thrombotic process that originated within the vertebro-basilar system was the result of natural disease, or trauma arising from neck manipulation. Ms. Lewis had a number of risk factors of stroke and there were pathologic findings of pre-existing natural disease (atherosclerosis) in her vertebro-basilar arteries. Ms. Lewis also had a long-standing history of headache and treatment for her headache included chiropractic neck manipulation. The last neck manipulation prior to her death has been performed on August 26, 1996.

The jury at this inquest heard extensive expert opinion evidence (including experts in pathology, neuropathology, neurology, neuroradiology, neurosurgery, orthopedic and spine surgery, biomechanics, and clinical epidemiology). Some of these experts testified that, in their opinion, natural disease (atherosclerosis) was the underlying cause of the thrombus in the left vertebral artery (and therefore subsequent strokes). Other experts proffered their opinion that trauma to the vertebral artery (such as may occur following neck manipulation) was the cause of the original thrombosis in the left vertebral artery (and therefore the subsequent strokes). The jury heard 91 days of evidence between April 22, 2002 and November 20, 2003. In total, 34 witnesses were called and testified, and 264 exhibits were entered for review.

Contact

The "Coroner's Jury Verdict & Recommendations" highlights inquests of interest to hospitals. These inquests either relate to deaths in hospital or the coroner's jury, in these inquests, has made recommendations directed at hospitals. Although coroner's jury recommendations are not legally binding, hospitals may wish to review and consider them, as may be appropriate. For further details or a full copy of the verdict, please contact Cyrelle Muskat at (416) 205-1378 or cmuskat@oha.com.