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PUBLICATION TEAM

Editor in Chief: Nicola Cunningham
Editorial Team: Joe Ibrahim
Adam O'Brien
Designer: Caroline Rosenberg

Address: Clinical Liaison Service
Coronial Services Centre
57-83 Kavanagh St
Southbank 3006
Telephone: +61 3 9684 4364

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Next Edition: August 2009

EDITORIAL

In this edition of the Communiqué, two cases are presented that highlight the need for vigilance with regards to ordering and performing investigative procedures. Both cases were heard at Inquest. For most healthcare professionals, an understanding of the process of Inquests and the role of coroners are shaped by film and television portrayals or by personal experiences of being called to court as a witness.

Coroners investigate the cause of, and the circumstances surrounding deaths from accident, injury or unexpected events using an inquisitorial approach. In countries such as Australia, the United Kingdom and New Zealand, Coroners usually have a legal background. Though Coroners have a variety of postgraduate qualifications and a wealth of medico-legal experience, it is not a requirement of coroners to have medical backgrounds. It is therefore most important that statements from healthcare professionals requested by a coroner about a death in a healthcare setting are succinct and clearly detail the healthcare events that have been highlighted. Such information makes for a timely and more accurate investigation into deaths in a healthcare setting.

The role of a Coroner is to establish the facts and then to draw legal conclusions and consider recommendations based on those facts. Information presented by the parties involved, the police, and at times, forensic pathologists and expert witnesses, assist the coroner in identifying the circumstances of the death.

The process of the Coroner's death investigation may appear to be a process of apportioning blame, particularly to those that are required to provide statements and give evidence. The following extract articulates the focus of an investigation and the purpose of an inquest.

"It is no part of the Coroner's function to apportion blame for the death. The coroner must however be able to go beyond the mere cause of death if the coroner is to serve a useful social function, and must establish so far as is possible, the circumstances of the death. The implicit attribution of blame may be unavoidable in order for the coroner to ascertain or explain how the death occurred in the wider events that were the real cause. Evidence and cross-examination should not be adduced for the purpose of discrediting a witness by showing him or her to be at fault. This is because the purpose of the inquest is not to discredit or blame a person but to ascertain the death although the evidence as to the cause of death may tend to discredit or blame."[1]

1. Coroners Court v Susan Newton & Fairfax New Zealand Ltd, paragraph 28 (a judgement delivered 30th November 2005 by the New Zealand Court of Appeal).

FEEDBACK

The CLS team is keen to receive feedback about this communication especially in relation to changes in clinical practice.

Please email your comments, questions and suggestions to: **cls@vifm.org**

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Other publications including the Residential Aged Care Coronial Communiqué and WORKWISE can be found on our website at **http://www.vifm.org/n961.html**

RECENTLY CLOSED CASES

2501/04 A 79 year old male with a history of cardiomyopathy and renal failure underwent a colonoscopy for investigation of an altered bowel habit. During the procedure a perforation occurred in the sigmoid colon which was recognised at the time. Despite immediate transfer for surgical repair of his colon, he developed worsening renal failure and sepsis and died 2 weeks later.

2863/05 A 58 year old male with chronic liver disease secondary to alcohol ingestion was admitted to hospital with symptomatic ascites. An ascitic tap was performed and a total of 23 litres of fluid was drained. The following day he developed shortness of breath and an x-ray revealed a small amount of gas under the diaphragm. He was diagnosed with perforation of the bowel and died two days later with presumed abdominal sepsis complicating management of massive ascites.

4488/06 A 20 year old male collapsed at work and was taken to hospital by ambulance. On arrival, he was profusely sweating, drooling and had difficulty swallowing. He denied any recent history of illnesses or exposure to toxic substances, and multiple tests did not identify a definitive diagnosis. His condition deteriorated and he underwent exploratory surgery, which revealed extensive necrosis of his gastrointestinal and respiratory tracts, and he died soon after. Following an investigation, the coroner concluded that he had intentionally ingested a substance with corrosive effects accessed from his place of employment.

4931/06 A 46 year old male with a history of hypertension presented to hospital with a sudden onset of chest pain and vomiting. He was diagnosed with gastroenteritis and admitted overnight for observation. He deteriorated the next morning with hypotension and tachycardia and an urgent CT angiogram was performed which showed a thoracic aortic dissection. He was taken to theatre and died intra-operatively.

904/07 A 48 year old male with a past history that included a renal transplant was admitted to hospital with a provisional diagnosis of pancreatitis. A CT scan of the abdomen showed a probable abscess that required drainage. He developed chest pain shortly afterwards and had a brief seizure then a cardiac arrest. An autopsy was performed and the cause of death was found to be coronary artery disease in a man with acute pancreatitis and sepsis (presumed secondary to azathioprine).

4259/07 A 74 year old female with a background of Non-Hodgkin's lymphoma treated with chemotherapy was admitted to hospital with a headache, fever and confusion. She developed a right sided hemiparesis, continued to deteriorate and subsequently died. The forensic pathologist who performed the autopsy formed the opinion that the cause of death was acute infarction of the left middle cerebral artery in a woman with meningitis.

READERS' FEEDBACK

Following our February issue of the Coronial Communiqué, we were contacted by the Victorian Surgical Consultative Council (VSCC) who noted that two of the major topics presented in our issue had previously also been discussed at length by the VSCC, and practice statements produced and sent to all surgeons.

For copies of their practice statements on PEG tubes and inappropriate closure of colonic ends, together with a number of other surgical topics, please refer to the VSCC website at: **www.health.vic.giv.au/vscc**

WHEN A HEADACHE IS NOT JUST A HEADACHE

CASE NUMBER: 3831/05
Case Précis Author: Amanda Charles RN, CLS

CLINICAL SUMMARY

Ms P was a 26 year old female who had a medical history of migraines and depression. She attended her medical clinic regarding an episode that had taken place the previous day where she had been under considerable stress working on her computer at home, and experienced 5-10 minutes during which she held a phone but had trouble talking. She reported that she had remained conscious throughout but that the episode was followed by a migraine. She had taken her usual medication and went to sleep, and when she woke she noticed that she had bitten her tongue.

The episode was also described by her mother in a letter that she had given to her daughter to take with her to the general practitioner (GP), noting that she *"went into a kind of trance, stood with phone to ear, and staring and unable to speak..."* There was a further description of the deceased *"slightly shaking her head and having bitten her tongue".* At her consultation with the GP she was diagnosed as suffering a pre-migrainous episode associated with anxiety and given a prescription for anti-inflammatory suppositories. A week after this presentation she died in her sleep and the death was reported to the State Coroner's Office.

PATHOLOGY

Following a full autopsy at VIFM, the pathological cause of death was pleomorphic xanthoastrocytoma (a rare tumour of the brain). The pathologist also commented that the deceased was likely to have suffered an epileptic fit immediately before she died.

INVESTIGATION

The family of the deceased expressed concerns about the level of care provided by the GP with respect to the lack of any investigations or referral of the deceased. A statement was obtained from the GP who reiterated his diagnosis of migraine and anxiety. He apologised to the family and conceded that he had interpreted the mother's note in light of the diagnosis he had already made, and that it did not cause him to challenge or re-visit his diagnosis.

At the inquest an independent expert opinion was obtained from a GP who gave the opinion that a more extensive central nervous system examination was warranted and referral for a CT scan of the brain was also indicated. The expert also opined that the long past history of migraine should have directed the doctor to determine whether or not the current symptoms were new and atypical.

An expert neurosurgical opinion regarding the diagnosis of the tumour and potential subsequent management was also obtained. The court heard that the tumour was slow-growing and usually presented with a history of seizures or headache, and that with treatment, the overall outcome was generally good. The expert neurosurgeon agreed that the presentation had been suggestive of a seizure and therefore a CT scan of the brain should have been arranged.

CORONER'S COMMENTS AND FINDINGS

The Coroner accepted the apology made by the GP to the family and commented that the clinical care afforded the deceased fell below the standards reasonably expected of a GP, and contributed to her death. The coroner stated, *"The minimum required of the GP in the circumstances was to recognise that the combination of symptoms conveyed, both by her and in her mother's note, potentially represented a seizure and to initiate investigation by CT scan of the brain. Had he done this much and no more, his clinical care could not be criticised by reference to minimum expected standards, irrespective of what might have ensued by way of delays and difficulties along the diagnostic and treatment path".*

In closing, the coroner made reference to the need for vigilance in the recognition of new symptoms (in this case, the bitten tongue and trance-like state) and deemed the death preventable in that a CT brain scan would have identified a tumour, and the deceased may have been commenced on anti-convulsant medication and therefore not have died in status epilepticus.

AUTHOR'S COMMENTS

This case demonstrates to clinicians how easy it is to not consider all possibilities when presented with the evidence. In this case the letter describing what appeared to be a seizure was not considered as the doctor had already made his diagnosis. Clinicians can get "locked in" to a diagnosis and will therefore fail to consider other differential diagnoses.

KEY WORDS

Seizure, adult, history-taking, migraine, CT scan

MENINGOCOCCAL DISEASE – MENINGITIS OR BACTERAEMIA?

CASE NUMBER: 3575/05
Case Precis Author: Dr Adam O'Brien, FACEM, CLS.

CLINICAL SUMMARY

An 11 year old boy presented to a metropolitan ED one evening with left sided back pain and vomiting since early evening. He was pale, lethargic and unwell but had a normal temperature and a pulse of 100bpm. He was alert, the blood sugar was 6.8mmol/L and the urinalysis was positive only for ketones. His lungs were clear and his oxygen saturation was 99% and the examination was otherwise normal.

A viral illness was considered most likely. An intravenous line was inserted and saline was commenced. His CXR was clear, his CRP was not significantly elevated and his white cell count was 16.3.

Two hours later he developed a fever of 38°C at which point blood cultures were taken and he was prescribed paracetamol. It was decided to admit him to the paediatric ward in view of continued vomiting with the presumptive diagnosis of gastroenteritis. Several hours later he developed diarrhoea.

He was taken to the paediatric ward at 07:30h and was able to walk despite continuing to vomit and have diarrhoea. The paediatrician examined him at 09:30h and then again at 10:30h. A headache along with a petechial rash on his legs and purpuric lesions around the left eye were noted. Although meningococcal meningitis was considered unlikely it was decided to perform a lumbar puncture (LP), blood cultures and administer antibiotics. The child had no papilloedema or photophobia.

The patient got himself onto the trolley for the LP and blood tests. The LP was performed uneventfully at 11:00h. At 11:50h the nurse noted that he developed weakness in his left arm and leg. At this time the LP confirmed meningococcal meningitis. A second dose of antibiotics was given at 12:05h. He had a seizure soon after which was stopped with intravenous clonazepam. With the help of anaesthetics he was intubated, ventilated and prescribed mannitol. He was flown to the Royal Children's Hospital at 14:10h where he was declared brain dead with subsequent withdrawal of life support.

CAUSE OF DEATH

The coroner found that the cause of death was a respiratory arrest precipitated by a lumbar puncture.

INVESTIGATION

One expert considered that an unwell patient with fever and the typical rash of purpura or petechiae was likely to have meningococcal bacteraemia (meningococcaemia). In such patients an LP was not indicated and should not be performed. Rather, appropriate antibiotics should be given promptly and the child resuscitated.

Another expert opined that if meningitis, including meningococcal meningitis, was considered a possible diagnosis, an LP should be performed if there were no contraindications[4]. The advantages of performing an LP included early diagnosis of the organism, proving that meningitis exists, and the ability to assist therapy. The advantages of obtaining a microbiological diagnosis also included being able to provide appropriate prophylaxis for close contacts, and allowing the Health Department to monitor outbreaks.

AUTHOR'S COMMENTS

Meningococcal disease has a number of syndromes[3] including meningococcal bacteraemia (meningococcaemia) and meningococcal meningitis. LP's have no role in the former and may assist in the latter.

Furthermore, an LP in a patient with signs of coagulopathy (purpura/petechiae) is contraindicated, as expressed in the expert evidence.

KEYWORDS

Lumbar puncture, meningitis, bacteraemia, seizure

REFERENCES

1. The role of lumbar puncture in children with suspected central nervous system infection (2002): http://www.biomedcentral.com/1471-2431/2/8
2. New guidelines for management and prevention of meningococcal disease in Australia (1997): http://www.mja.com.au/public/issues/jun2/patel/patel.html#suba2
3. Early clinical clues to meningococcaemia (2003): http://www.mja.com.au/public/issues/178_03_030203/yun10460_fm.html
4. Royal Children's Hospital guidelines (Lumbar Puncture): http://www.rch.org.au/clinicalguide/cpg.cfm?doc_id=5178

ERRATUM

Please note that in the February 2009 edition, Dr John Johnstone should also have been listed as an author for the Commentary on PEG Tubes.

All cases that are discussed in the Coronial Communiqué are public documents. A document becomes public once the coronial investigation process has been completed and the case is closed. We have made every attempt to ensure that individual clinicians and hospitals are de-identified. However, if you would like to examine the case in greater detail, we have also provided the coronial case number.