

Two cases of near asphyxiation in children, using non-releasing plastic garden ties

We read with interest the emergency casebook featuring two cases of near asphyxiation.¹ It is our practice to admit all cases of near strangulation who present early with signs or symptoms in keeping with the history for a period of observation. We adopt this policy on the basis that it is possible to miss occult, significant upper airway pathology in victims of near strangulation² and airway obstruction can present as late as 36 hours after such an event.³ In addition it is possible to overlook visual impairment in such patients as subtle changes in visual acuity may not initially be apparent.⁴ Cases of near asphyxiation in children are not widely reported in the literature and therefore it is difficult to have an evidence based admission/discharge policy. Are we being over cautious?

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References

- 1 **Makwana M**, Evans HM, Moore D, *et al*. Two cases of near asphyxiation in children, using non-releasing plastic garden ties. *Emerg Med J* 2001;**18**:229–30.
- 2 **Stanley RB**, Hanson DG. Manual strangulation injuries to the larynx. *Arch Otolaryngol* 1982;**109**:44–7.
- 3 **Kuriloff DB**, Pincus RL. Delayed airway obstruction and neck abscess following manual strangulation injury. *Ann Otol Rhinol Laryngol* 1989;**98**:824–7.
- 4 **Baldwin GA**, Macnab AJ, McCormick AQ. Visual loss following traumatic asphyxia in children. *J Trauma Injury Infect Crit Care* 1988;**28**:557–8.

Author's reply

We agree entirely, the experience with asphyxiation in children is limited and therefore there is no evidence base as to what is the most appropriate admission/discharge policy. At the Birmingham Children's Hospital we are fortunate in being able to observe less sick children in an accident and emergency based observation bay, in case they get delayed respiratory symptoms, and therefore do not need to admit many children to the paediatric wards.

We were interested to note the reference to subtle changes in visual acuity by Baldwin *et al*.¹ This suggests it would be wise to consider visual acuity testing a few weeks after such an incident and we would certainly look towards arranging ophthalmological follow up with these patients in the future.

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Reference

- 1 **Baldwin GA**, Macnab AJ, McCormick AQ. Visual loss following traumatic asphyxia in children. *J Trauma Injury Infect Crit Care* 1988;**28**:557–8.

Tuberculous osteomyelitis

Yuen and Tung describe a case of tuberculous osteomyelitis of the foot¹ and the potential difficulties in making the diagnosis. The authors were fortunate enough to have typical histological biopsy findings that subsequently cultured *Mycobacterium tuberculosis* (TB), providing diagnostic confirmation and estimations of sensitivities. However, in many

instances, the diagnosis of tuberculosis is difficult to verify. For instance, acid fast bacilli may not be identified on biopsy or may be non-tuberculous in origin. Additionally, subsequent culture confirmation can take several weeks or may fail completely, because of the fastidious nature of TB.

Although the reliance on clinical suspicion is the basis for the diagnosis of many cases of TB, definitive confirmation is desirable in view of the long term nature of treatment. It is also important to ensure that the organism is not resistant to the chemotherapeutic regimen being used, particularly with the increasing incidence of multidrug resistant TB strains. A number of novel diagnostic techniques have been developed to facilitate this. The use of the polymerase chain reaction to amplify specific TB DNA sequences permits a rapid confirmation of the diagnosis and an estimation of drug sensitivity.² These techniques have been successfully used on both clinical specimens and culture material.³ Thus, acid fast bacilli can rapidly be identified as *Mycobacterium tuberculosis* and an estimation of rifampicin sensitivity can be obtained in a matter of days, free from the constraints of waiting up to several weeks for the standard culture to grow. These techniques should therefore be considered, particularly if the clinical findings are subtle or atypical.

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References

- 1 **Yuen MC**, Tung WK. An uncommon cause of foot ulcer: tuberculous osteomyelitis. *Emerg Med J* 2001;**18**:140–1.
- 2 **Telenti A**, Imboden P, Marchesi F, *et al*. Detection of rifampicin-resistance mutations in *Mycobacterium tuberculosis*. *Lancet* 1993;**341**:647–50.
- 3 **Shah S**, Miller A, Mastellone A, *et al*. Rapid diagnosis of tuberculosis in various biopsy and body fluid specimens by the AMPLICOR *Mycobacterium tuberculosis* polymerase chain reaction test. *Chest* 1998;**113**:1190–4.

Authors' reply

We thank Dr Ho for his comment on our article reporting a young patient with tuberculous osteomyelitis.¹ We wrote the article from the perspective of emergency medicine. Although polymerase chain reaction (PCR) is a good adjunct to microbiological culture for diagnosing mycobacterium tuberculosis, it is not available to the majority of emergency physicians in Hong Kong. None the less, we should discuss it briefly so that our article is more informative to readers.

Without argument, PCR provides an opportunity for early diagnosis and treatment. However, we should also note the limitation of the PCR especially when the PCR result is negative.

In 1998 Shah *et al* reported the accuracy of the AMPLICOR PCR test in diagnosing mycobacterium tuberculosis in tissue and body fluid specimens.² In this study, culture proof was adopted as the gold standard for diagnosing tuberculosis. Although 1032 patients were included in this study, only 34 specimens were positive for tuberculosis. Therefore, the sample size was too small and the 95% confidence interval of the sensitivity was too wide to suggest that PCR would not miss the diagnosis of mycobacterium tuberculosis. In this study, the PCR had a sensitivity of 76.4%, a specificity of 99.8% when results were compared with the gold standard. With the high specificity, PCR

is a good "rule in" test. However, PCR should not be used as a "rule out" test because of the high false negative rate.

In 2000 Lim *et al* reported the accuracy of the AMPLICOR PCR test in diagnosing pulmonary tuberculosis in smear negative respiratory tract specimens. Once again, the PCR test had a low sensitivity of 44% and a high specificity of 99%.³

With evidence from both studies, a positive PCR test result facilitates early diagnosis, but a negative PCR test result cannot exclude mycobacterium tuberculosis. At the moment, microbiological culture remains the gold standard for diagnosing tuberculosis and a high index of suspicion for tuberculosis is the key to diagnosis.

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References

- 1 **Yuen MC**, Tung WK. An uncommon cause of foot ulcer: tuberculous osteomyelitis. *Emerg Med J* 2001;**18**:140–1.
- 2 **Shah S**, Miller A, Mastellone A, *et al*. Rapid diagnosis of tuberculosis in various biopsy and body fluid specimens by the AMPLICOR mycobacterium tuberculosis polymerase chain reaction test. *Chest* 1998;**113**:1190–4.
- 3 **Lim TK**, Gough A, Chin NK, *et al*. Relationship between estimated pretest probability and accuracy of automated mycobacterium tuberculosis assay in smear-negative pulmonary tuberculosis. *Chest* 2000;**118**:641–7.

Journal clubs in clinical medicine

Journal clubs in clinical medicine have long been recognised as a useful tool for keeping up to date with new developments.¹ More recently they have been used as a tool for the teaching of critical appraisal,² which for emergency medicine trainees in the UK is an important part of their final fellowship examination.

Since the inception of our journal club³ we have noticed a subtle change in both the quality and quantity of papers in the journals that we chose to review. This made it more difficult to combine both the educational value of critical appraisal and keeping up to date with the relevant advances in our specialty so that we can apply this to our practice of evidence based medicine.

To address this we undertook to review our choice of journals to try to increase our yield of relevant articles. After finding a complete journal list from Medline a consensus opinion was reached on the basis of relevance to practice, past experience of quality of papers, and personal choice. The number of times per year that the journals, or groups of journals, are reviewed depends on the number of issues per year and the likelihood of finding papers relevant to emergency medicine in them.

The complete list of journals and their review rates is shown in table 1.

We believe that all departments with a journal club should regularly revise their selection of journals in order to increase the value of this important educational process.

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Table 1 Frequency of journal review

Journal	Reviews per year
Academic Emergency Medicine	4
Annals of Emergency Medicine	4
British Medical Journal	4
Lancet	4
Medical journals (Archives of Internal Medicine, Annals of Internal Medicine, Clinical Medicine, Chest, Cardiology, Circulation, etc)	4
New England Journal of Medicine	4
Paediatric Journals (Archives of Disease in Childhood, Pediatric Emergency Care, etc)	4
American Journal of Emergency Medicine	3
Emergency Medicine Journal	3
JAMA	3
Intensive care journals (Anaesthesia and Intensive Care, Critical Care Medicine, Intensive Care Medicine, etc)	2
Journal of Trauma	2
Resuscitation	2
Anaesthetic journals (Anaesthesia, Anaesthesia and Intensive Care, British Journal of Anaesthesia, etc)	1
Burns	1
European Journal of Emergency Medicine	1
Injury	1
Injury Prevention	1
Nursing journals (Accident and Emergency Nursing, Emergency Nurse, Journal of Emergency Nursing, etc)	1
Sports journals (American Journal of Sports Medicine, British Journal of Sports Medicine, etc)	1

References

- 1 **Linzer M.** The journal club and medical education: over one hundred years of unrecorded history. *Postgrad Med J* 1987;**63**: 475–478.
- 2 **Jouriles NJ, Cordell WH, Martin DR, et al.** Emergency medicine journal clubs. *Acad Emerg Med* 2001;**3**:872–8.
- 3 **Carley SD, Mackway-Jones K, Jones A, et al.** Moving towards evidence based emergency medicine: use of a structured critical appraisal journal club. *J Accid Emerg Med* 1998;**15**:220–2.

A misdiagnosed fracture of the calcaneum

I am writing in response to the interesting case report of “A misdiagnosed fracture of the calcaneum”.¹ The author, having accepted the original diagnosis of partial Achilles tendon rupture was incorrect, suggested on expanding the criteria for radiological assessment in doubtful clinical cases. It was obvious from the history that the injury was sustained as a result of minimal trauma, in a patient with significant risk factors for osteoporosis. Coupled with an examination finding of a palpable gap in the Achilles tendon/calcaneal complex, the incorrect diagnosis was made solely on a negative Simmonds test. With these clinical findings and the published lateral radiograph of the calcaneum, I do not accept the original opinion of a negative Simmonds test. Simmonds² or similarly Thompson’s test,³ has been shown to be a reliable sign for complete Achilles disruption,⁴ with a diagnosis of partial rupture being a rare occurrence!

The lesson to be learnt from this case is not how to increase our diagnostic accuracy with radiology, but the importance of taking a good history and performing a sound clinical examination. The last thing we need is to generate protocols and criteria to make up for our shortcomings. Please note the correct spelling for Simmonds!

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References

- 1 **Cutts S, Morris MS.** A misdiagnosed fracture of the calcaneum. *Emerg Med J* 2001;**18**: 145–6.
- 2 **Simmonds FA.** The diagnosis of the ruptured Achilles tendon. *Practitioner* 1957;**179**:56–8.
- 3 **Thompson TC.** A test for rupture of the tendo Achillis. *Acta Orthop Scand* 1962;**32**:461–5.
- 4 **Maffulli N.** Rupture of the Achilles tendon. *J Bone Joint Surg Am* 1999;**81**(A):1019–36.

Screening for alcohol misuse

The Paddington Alcohol Test (PAT) confers considerable advantage over the CAGE as the accident and emergency (A&E) screen for alcohol misuse.

Hadida *et al*’s commendable study¹ identified 28% (out of 413) A&E attendees as having an alcohol related problem. A pilot study using the CAGE, run in our department a decade ago,² had a very low pick up rate, which was one of the reasons behind the development of the PAT. Our recent study,³ using the PAT, had an overall detection rate of 6.4% rising to 9.8% in the third month after intensive audit and feedback.

Four features could explain the discrepancy:

(1) in the PAT study only 61.1% of patients had presenting complaints mandating the test. The detection rate for this group (in month 3) was 14.3%.

(2) in this group, 62 patients (of 286) were missed—that is, did not have the test applied.

(3) the Hadida *et al* study identified a number of misusers by “staff assessment”. The basis of this assessment is unclear. Two questions are paramount: (a) Was an alcohol history taken?, (b) Did the patient agree with the doctor/nurse’s assessment?

(4) the Hadida *et al* study effectively had an extra member of staff run the screening protocol—whereas PAT usage simply reflects our own routine practice, with no extra staffing.

Studies suggest the CAGE detects dependent rather than hazardous drinkers,⁴ a point rightly discussed by Hadida *et al*, and emphasised elsewhere.⁵ Compared with dependent drinkers, hazardous drinkers (earlier on in their drinking history) are more likely to respond to brief interventions.⁵

The PAT is designed specifically for use by A&E practitioners, to detect hazardous as well as dependent drinkers. Detection is not indiscriminate but guided by “The Top Ten” presenting conditions, whereby screening is targeted and most effective. Furthermore, question 3 of the PAT—“do you feel your current attendance in A&E is related to alcohol?”—helps reinforce the idea that their presenting problem may be alcohol related, even if the patient were to refuse help on this occasion.

As the number of A&E departments that work with alcohol health workers increases it is hoped that the worth of the PAT will be further recognised.

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References

- 1 **Hadida A, Kapur N, Mackway-Jones K et al.** Comparing two different methods of identifying alcohol related problems in the emergency department: a real chance to intervene? *Emerg Med J* 2001;**18**:112–15.
- 2 **Green M, Setchell J, Hames P, et al.** Management of alcohol abusing patients in accident and emergency departments. *J R Soc Med* 1993;**86**:393–5.
- 3 **Huntley JS, Blain C, Hood S, et al.** Improving detection of alcohol misuse in patients presenting to an accident and emergency department. *Emerg Med J* 2001;**18**:99–104.
- 4 **Cherpitel CJ.** Screening for alcohol problems in the emergency room: a rapid alcohol problems screen. *Drug Alcohol Depend* 1995;**40**:133–7.
- 5 **Working party of the Royal College of Physicians.** Alcohol—can the NHS afford it? Recommendations for a coherent alcohol strategy for hospitals. London: Royal College of Physicians, February 2001.

Authors’ reply

We thank Huntley and colleagues for their comments on our paper.¹ They make the point that the Paddington Alcohol Test² is a better instrument for screening for alcohol problems in the emergency department than the CAGE.³ We would not take issue with this.

The main aim of our study was not to investigate the sensitivity and specificity of