

Atoms



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IS IT EPILEPSY?

An old teacher of mine – a very distinguished neurologist – once related that after he and two colleagues observed a child having a “seizure” and they reviewed the EEG, there were three definitive opinions. One neurologist was certain that the child had seized, another was just as sure that the child had not, and the third was confident that he was uncertain. The misdiagnosis of epilepsy is explored in articles by Hindley and colleagues from Halliwell Children’s Centre, Uldall, *et al* from Copenhagen, and an accompanying perspective by CD Ferrie. Why is the diagnosis of epilepsy so complicated? Unfortunately, there is not a single definitive laboratory test, the differential is long, and epilepsy is not a single entity. These three articles are an important read, even more so, because of the recent events surrounding the practice of Dr Andrew Holton.

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SHAKEN BABY SYNDROME REVISITED

Thirteen authors have penned an important perspective on the shaken baby syndrome. All of the authors gave evidence in the Court of Appeal in London, in June 2005, in the appeals against convictions for non-accidental injury of infants. They explore the origins of the “Geddes hypothesis,” discuss the minimal force required to injure an infant, and then review the four appeals. They state that “the triad of encephalopathy, subdural haemorrhages, and retinal haemorrhages as an indicator of head injury has stood the test of time and it has not been undermined by these proceedings.” They conclude with the following statement: “However, doctors must continue to do their duty to report suspected abuse and to perform carefully documented medical investigation in cases of suspect child abuse.” These authors are to be congratulated for the clarity of this report, and more importantly, for their willingness to stand up for the rights of children.

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AFTER ORS FAILS WHAT’S NEXT?

Does it make a difference if children with gastroenteritis receive 0.9% saline + 2.5% dextrose (NS) or 0.45% saline + 2.5% dextrose (N/2). In a nicely done study by Neville and colleagues from Sydney Children’s Hospital, 102 children were randomised to receive either NS or N/2. About 5% of the children were dehydrated and 36% hyponatraemic at the time of randomisation. Children, regardless of whether they were hyponatraemic or normatraemic, who were assigned to NS appeared to do better, at least with respect to their serum sodium level. Although the sample size is small, and no major complications were noted in either group, I suspect that this study will make it into Archimedes one day. Maybe it does make a difference if we use NS rather than N/2 in children with gastroenteritis.

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OBSTRUCTIVE SLEEP APNEA – IS ONE POLYSOMNOGRAPHIC STUDY ENOUGH?

Some experts estimate that the prevalence of sleep disorder breathing and obstructive sleep apnoea (OSA) may be as high as 5% in children. Certainly the epidemic of obesity has contributed to the increase in OSA. Verhulst *et al* from Belgium explore the possibility of “first night effect”—that is, reduced sleep quality on the first night of hospitalisation for monitoring may impact on the validity of the data obtained from the polysomnography. In a group of 70 children, ranging in age from 2 to 17 years, they found a false negative rate for OSA of 9%. They recommend that in cases with a suggestive history and examination and a negative test, a second night study should be considered. Although their recommendation is clear, it is somewhat puzzling, since I assume that the reason a child underwent investigation in the first place was because of a suggestive history and examination.

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THIS MONTH IN FETAL AND NEONATAL EDITION

- 10 000 000 children under the age of five years die each year. A significant proportion of these deaths occur in the neonatal period. The WHO has tried to develop algorithms for many medical conditions, for example, pneumonia. Mullany and colleagues have developed a sign based algorithm for the identification of omphalitis. The development and validation of clinical decision rules is complex, but for problems in the developing world, a critically important endeavor. I look forward to more reports from this group.
- Drs. Philipp and Radford write about the Baby-Friendly Initiative. In my many travels to Britain, I am impressed with the ardor with which UK paediatricians keep their distance from companies that produce formula and the continuing controversy about commercial sponsorship. The membership of the College is far more outspoken about this issue than members of the American Academy of Pediatrics. That said, it is puzzling to me that in England breastfeeding rates are low in comparison to many countries in Europe. The long list of benefits of breast-feeding is reaching legendary status, and there are now substantial data that Baby-Friendly does work, particularly with respect to initiation of breastfeeding. It would seem that Baby-Friendly should be more popular in the UK (Scotland is the exception) than it appears to be.
- At a recent meeting of our editorial board, Gorm Greisen from Denmark mentioned that they rarely intubate and ventilate premature infants, rather they manage most with continuous positive airway pressure (CPAP). Some experts believe that the variation in rates of bronchopulmonary dysplasia are related to how infants receive respiratory support. Bomont and Cheema from Addenbrookes Hospital describe their experience using CPAP during neonatal transport. If indeed CPAP, rather than intubation and ventilation, leads to less bronchopulmonary dysplasia, it should become more common for infants who are transported to NICUs.