Atoms

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THE MYSTIFYING WORLD OF MINOR HEAD TRAUMA

Following minor head trauma, we ask ourselves two important questions—who should be imaged and who should be admitted? Unfortunately, despite two decades of research, the answers to these questions remain elusive. In anticipation of a number of reports from various cooperative studies being conducted in the UK, Canada, and various other countries, Dunning and colleagues from the Manchester Royal Infirmary, report the results of a meta-analysis that examined variables that predict significant intracranial injury following minor head trauma. Not surprisingly, there were a large number of reports to analyse—16, involving 22 420 patients. Unfortunately, the results are consistent with conventional wisdom; skull fracture, focal neurological exam, and a Glasgow Coma Scale below 15 have the greatest relative risk for intracranial haemorrhage. Headache and vomiting are not particularly useful, and seizures and level of consciousness are of intermediate importance. Where does this study leave us? First, it points out the limitations of meta-analyses, particularly of observational rather than experimental studies. Second, it is uncertain what outcome we are trying to predict—that is, intracranial haemorrhage (which can vary widely in definition and detection), surgical intervention, or actual patient well being. The development of reliable and valid prediction rules is very complicated science. Please see the additional comments in an editorial by Dr Nathan Kuppermann.

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GUIDELINE IMPLEMENTATION: DECLINING BENEFIT WITH TIME

The outcome following implementation of hospital guidelines is generally good. Variation declines and both process and outcome measures improve. This has been particularly true for asthma and bronchiolitis. Rather than describe yet another successful guideline implementation project, Massie and colleagues report the rather modest impact of an asthma guideline at the Royal Children's Hospital, Melbourne, Australia. Why the lack of success? First, as is often the case, perhaps they did not measure enough outcomes, although they did focus on important ones, including rehospitalisation, school absences, and asthma symptoms. More likely, as clinicians have concentrated on improving the care of hospitalised children with asthma regardless of guideline implementation initiatives, quality improves. It is probably time to focus on other important diseases in which variation has been well documented including cystic fibrosis, type 1 and 2 diabetes, sickle cell disease, inflammatory bowel disease (IBD), and care in the NICU.

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THE RELENTLESS PROGRESS OF GENETICS

Journals continue to struggle with how to present information about the genetic revolution that is both generalised and clinically relevant. Russell and colleagues write of the complex genetics of IBD. The importance of this article is not only the specific data about IBD, but also the roadmap that it details for genetics in general. Acknowledging that most diseases are likely to be the product of some genetic predisposition coupled with environmental exposure (gene–environmental interaction) they discuss how researchers can select either candidate genes based upon an understanding of disease pathology or conduct genome-wide scanning, which relies on the systematic analysis of the human genome in a large number of affected and unaffected subjects. As I have mentioned before, while gene therapy may be a decade or more away, refining prognosis and a more rational approach to therapy based upon a genetic profile are rapidly approaching.

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CFS – SUCCESSFUL TREATMENT AT LAST

Chronic fatigue syndrome (CFS) has been difficult to treat. Clearly the vague nature of the disorder, lack of any biological marker, and psychological consequences for both the individual and family have made it difficult to develop successful interventions. Viner and colleagues from Great Ormond Street report the success—improved wellness score and school attendance—in a group of 48 teenagers, of which 26 entered a rehabilitation programme. Unfortunately, although the groups appear similar at baseline, the non-experimental design raises concern about possible confounding. However, this programme shows promise and the investigators are to be congratulated for developing a comprehensive programme for a complex disease and assessing its value.

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A NEW USE FOR MORPHINE SULPHATE

Tremendous strides have been made in pain management for children over the past decade. New non-steroidals, patient controlled analgesia, conscious sedation, various preparations of opiates and topical anaesthetics, and complementary and alternative approaches to treatment, such as acupuncture and hypnosis, are examples of some of these advances. In a case report Waterson and colleagues describe a novel use of morphine sulphate—as a topical gel—to control pain in two teenagers with epidermolysis bullosa. This paper illustrates how a case report can showcase new and important information. Although the number of case reports in *ADC* has declined, we will continue to consider those that present exciting and provocative information.

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