Atoms

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IS NOTHING SACRED?

Few parts of the physical examination are as sacred as the Barlow and Ortolani procedures that are used to detect developmental dysplasia of the hip (DDH). The United States Preventive Services Task Force (USPSTF), the US equivalent of NICE, recently released recommendations regarding screening for DDH (http://www.ahrq.gov/clinic/uspstf/uspshipd.htm). Their conclusion – there is insufficient evidence to "recommend routine screening for developmental dysplasia of the hip in infants as a means to prevent adverse outcomes." The Task Force makes the following important points:

- Screening leads to earlier detection of DDH, but 60% to 80% of hips that are identified as abnormal by physical examination will normalise spontaneously within 2 to 8 weeks.
- Insufficient evidence exists to determine whether surgical or nonsurgical interventions are effective.
- Harm is possible, false-positive screens can cause parental stress, lead to additional costly testing, and repeated examination of the hip may negatively affect the joint.

I am not surprised by the statement from the USPSTF. The literature on DDH, much of it generated in the UK, is murky. It has been difficult to establish a "goal standard of disease." Because DDH is a spectrum of anatomical abnormalities that includes dysplastic, subluxated, dislocatable, and dislocated hips, many of the studies contain infants with varying degrees of DDH. The addition of ultrasound, which is another subjective test, has only further clouded the picture. Will physicians give up the Barlow and Ortolani examination? I doubt it, but we need to be aware that the "evidence base" for these procedures and the rigorous process of screening to case-finding to intervention to improved outcome for DDH is inconclusive.

THE USE OF GASTROSTOMY TUBES IN CHILDREN WITH SEVERE DISABILITIES

Sullivan and colleagues from Radcliffe Hospital describe their experience using gastrostomy tube feeding in 57 children with severe neurological disabilities. They found that there was no increase in morbidity related to respiratory infections in the 12 months following insertion of the feeding tube and in fact children were hospitalised less frequently following the procedure. In a thoughtful perspective, Vickers and Maynard discuss the impact of gastrostomy feeding on the family. They acknowledge that such feeding likely improves the health of the child, but that "there needs to be a balance between the biomedical needs of the child and the social impact on the family…" I recall a very complicated and painful discussion with a mother – a gastroenterologist and nutritionist were insisting on a very aggressive feeding regimen for her immobile 5-year- old. As the child gained weight, it was increasingly difficult for the mother to manage the "activities of daily living," including bathing, and transporting her child to school and doctors appointments.

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DIABETES: TWO DISORDERS, OR A SPECTRUM OF DISEASE?

For many years we have conveniently classified diabetes into type 1 and type 2. This categorisation began to change two decades ago. The obesity epidemic has led us to reconsider the various types of diabetes, particularly with the recognition that the "metabolic syndrome" is another part of the diabetes family. Reinehr and colleagues from Germany describe the presence of B-cell autoantibodies that are normally associated with type 1 diabetes, in a group of 128 children with type 2 diabetes. Professor Wilkin expands on the observations of Reinehr, and discusses the entire diabetes family, trying to reconcile the increasing prevalence of both type 1 and type 2 disease.

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THE POWER OF INFLUENZA TO MESMERISE

The march of avian influenza A (H5N1) across continents and oceans, has captured headlines in the media, and led to a remarkable amount of scientific inquiry in a very short period of time. The specter of a new flu epidemic that would rival that of 1918 to 1920 has captivated the public and the scientific community. Part of the curious nature of influenza is its association with encephalopathy in young children, particularly in Japan. Is human influenza different in Asia, or is there a unique gene-environmental interaction that leads to encephalopathy? Although treatment for influenza associated encephalopathy would largely be considered experimental, with a fatality rate of 30%, most clinicians would consider aggressive treatment. Hosoya *et al* from Japan describe how cytochrome c and various cytokines, including tumour necrosis factor alpha and interleukin 6, are associated with unfavourable outcomes in children who develop encephalopathy. Drs. Surtees and Desousa provide a perspective on influenza virus associated encephalopathy and comment on the paper by Hosoya.

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