

# Highlights from this issue

R Mark Beattie, *Editor in Chief*

## MANAGEMENT OF KAWASAKI DISEASE

Kawasaki disease is an acute self limiting inflammatory disorder, associated with vasculitis, affecting predominately middle sized arteries, particularly the coronary arteries. It affects 8.1/100 000 children under age 5 years in the UK and is the commonest cause acquired heart disease in children in developed countries. The aetiology is unknown and felt to reflect an infective trigger inducing an inflammatory response in a genetically susceptible host. Genetic studies have identified susceptibility genes and genes that influence response to treatment. Eleftheriou and colleagues discuss the recent advances in aetiology and their impact on treatment. The use IVIG and aspirin are well established. The authors discuss the use of corticosteroids (and monoclonal antibody therapy) in severe cases/treatment resistant cases including discussion of scoring systems at presentation which predict response to treatment. This up to date guidance puts the advances in aetiology and management in context, advocates multicentre research looking at treatment and outcome and is essential reading for clinicians who diagnose, assess and manage this condition. *See page 74*

## NEUROPATHIC PAIN IN CHILDHOOD

The important issue of neuropathic pain in childhood is discussed in a comprehensive review by Richard Howard and colleagues. Neuropathic pain is pain due to a lesion or disease of the somatosensory nervous system. It is difficult to diagnose in childhood although can affect very young children—causes include traumatic injury, complex regional pain syndrome, cancer and chemotherapy, chronic infection, neurological and metabolic disease and inherited sensory nerve dysfunction. The different causes are discussed in detail. Diagnosis, assessment and treatment are largely based on adult data. Treatment options are limited. Drug therapy is often empirical and unsatisfactory. Tricyclics and the gabapentinoids are the most often used. Many other treatment options are available although many with significant toxicity or low therapeutic indices. These patients can be very difficult to manage and there is certainly a need for more research in children. *See page 84*

## SWADDLING AND HIP DYSPLASIA

There has been a resurgence of infant swaddling because of the perceived palliative effect on excessive crying and colic and promoting sleep. Swaddling involves binding or bundling babies in blankets with the arms restrained and the lower limbs extended and pressed together. Professor Clarke advises caution discussing the well recognised link between infant swaddling and developmental dysplasia of the hip, confirmed in many studies and induced in experimental animals. In essence in order to allow for healthy hip development legs should be able to bend up and out at the hips. This is an important public health message. The article is essential reading for all paediatricians and for those who market commercial swaddling products. *See page 5*

## ASSESSMENT OF GIRLS REFERRED WITH PRECOCIOUS PUBERTY

Many children are referred with precocious development of secondary sexual characteristics. Identification of those with central precocious puberty (CPP) can be challenging, but has important clinical implications in terms of the diagnostic work up and treatment. Harrington and colleagues assess the diagnostic utility of a single luteinizing hormone (LH) to identify CPP as a means to reduce the need for dynamic GnRH stimulation testing. 57 girls presenting with early signs of puberty were tested (6.2+/-2.1 years) at baseline and 6 months. Pubertal progression occurred in 18, 16 of whom had an LH $\geq$ 0.3 iu/L whilst 39/41 with LH $\leq$ 0.2 iu/L did not progress (sensitivity 90.5%, specificity 100%). These data confirm that basal LH levels are a useful first line test to identify patients that will have ongoing progression in pubertal signs. The wider issue of simplifying and refining the assessment of early puberty is discussed in the accompanying editorial. *See pages 15 and 3*

## TRENDS IN RESTING PULSE RATES: ARE OUR CHILDREN GETTING LESS FIT

Resting pulse rate is an important indicator of physical fitness and cardiovascular health, positively associated with obesity. Peters and colleagues use cross sectional data from five population based studies (22000 children aged 9–11 years) to examine trends in resting pulse rate

between 1980 and 2008. Mean resting pulse rate was higher for girls than boys (82.2 bpm vs 78.7 bpm). During the study period the mean pulse rate increased by 0.07 bpm/year (95% CI 0.04 to 0.09) for boys and 0.04 bpm (95% CI 0.01 to 0.06). This equates to an increase in 2 and 1 bpm respectively over the whole study period. The authors feel that this is only partially accounted for by the increase in BMI over the same period (the data is in the paper). The trends nevertheless are real and the public health implications for future cardiovascular risk are discussed in the accompanying editorial. *See pages 10 and 1*

## PREVALENCE OF THINNESS

Much has been written about the international obesity epidemic. Less attention has been paid to the prevalence of thinness and whether this has changed. Smith and colleagues describe the prevalence and year on year trends of childhood thinness between 1970 and 2006 in North East Scotland using measurements taken by school nurses at school entry. Using the International Obesity task force definitions (grade 1 corresponding to adult BMI $<$ 18.5 kg/m<sup>2</sup>, grade 2 corresponding to  $<$ 17.0 kg/m<sup>2</sup>) prevalence of thinness fell over the 26 years; grade 1 from 6.5% (1970) to 4.8% (2006), grade 2 from 5.2% to 1.3%. Thinness grade 2 was initially less prevalent in the more affluent communities although this difference disappears after 1990. *See page 58*

## IN F AND N THIS MONTH

In this month's issue Alberry *et al* report a series of cases which demonstrate the 'unintended consequences' of new guidance from the UK National Screening Committee and the Fetal Anomaly Screening Programme related to the interpretation of soft markers at the prenatal ultrasound and the decisions around whether full karyotype testing or FISH/QFPCR testing for trisomies should be carried out when invasive testing is indicated. They highlight cases of concern. The issues are discussed in an accompanying editorial with the appropriate title of antenatal screening for Down syndrome and other chromosomal abnormalities: increasingly complex issues.