Sildenafil for children after Fontan Procedure – what’s new? (Circulation 2011; 123: 1185-1193)

After the Fontan operation, patients often have decreased exercise capacity. Limitation in ventricular preload, related to pulmonary artery resistance plays an important role. A drug able to decrease pulmonary vascular resistance might increase transpulmonary flow and ventricular preload, therefore improving cardiac output and exercise performance. This crossover trial conducted on 28 children (median age 14.9 years) reported an increase in exercise capacity during submaximal exercise, after 6 weeks of sildenafil in those patients with single left or mixed ventricular morphology and in those with more advanced heart failure. The drug was well tolerated. Sildenafil may play a role in improving exercise performance and exercise-induced breathlessness in children and young adults with single-ventricle physiology after the Fontan operation.

EDITOR’S COMMENTS Who could imagine that the Blue Pill would one day be seen as a savior of Blue Babies?

Oral steroids linked to severe Vitamin D deficiency (J Clin Endocrinol Metab September 28, 2011; online first)

To assess the association between steroid use and vitamin D levels, the researchers examined data from 31,000 children and adult participants of the National Health and Nutrition Examination Survey (2001-2006) of United States. About 1% of the participants had used oral steroids during the previous 30 days; 11% of the self-reported steroid users had severely low vitamin D levels compared with 5% for people not taking steroids. The risk was particularly pronounced forsteroid users younger than 18 years, who were 14 times more likely to have severe vitamin D deficiency.

EDITOR’S COMMENTS My concern is different. Why should 1% of the general population at any given time be using steroids at all? Something seriously wrong somewhere!!

Comparison of umbilical venous and intraosseous access during simulated neonatal resuscitation (Pediatrics 2011; 128, 4 online)

Emergent umbilical venous catheter (UVC) placement for persistent bradycardia in the delivery room requires significant skill and involves space constraints. Placement of an intraosseous needle (ION) in neonates has been well described. In this study the authors compared time to placement, errors in placement, and perceived ease of use for UVCs and IONs in a simulated delivery room. Forty health care providers were shown a video of both techniques and allowed to practice placement in 2 simulated conditions requiring intravenous epinephrine. Scenarios were recorded for later analysis. The average time required for ION placement was 46 seconds faster than for UVC placement (P<.001). There was no significant difference in the number of errors between UVC and ION placement or in perceived ease of use. Authors concluded that intraosseous insertion should be considered when rapid intravenous access is required in the neonate at the time of birth, especially by health care professionals who do not routinely place UVCs.

EDITOR’S COMMENTS Take with a pinch of salt as the authors’ conclusions are based on extrapolation of results obtained on a manikin. The simulation may not always apply to a live situation!

Are febrile respiratory illnesses in infancy a risk factor for persistent asthma? (Eur Respir J. 2011 Sep 20. Epub ahead of print)

To explore associations between severe respiratory infections and atopy in early childhood with wheeze and asthma persisting into later childhood, 147 children at high atopic risk were followed from birth to 10 years. Data on all respiratory infections occurring in infancy were collected prospectively and viral etiology ascertained. Atopy was measured by skin prick tests at 6 months, 2 and 5 years. At 10 years 60% of the cohort was atopic, 25.9% had current eczema, 18.4% current asthma and 20.4% persistent wheeze. 35.8% experienced >1 lower respiratory infection (LRI) associated with fever and/or wheeze in first year. Children who had wheezy, or in particular, febrile LRI in infancy and were atopic by 2 years, were significantly more likely to have persistent wheeze (RR 3.51; 95%CI 1.83-6.70; P<0.001) and current asthma (RR 4.92; 95%CI 2.59-9.36; P<0.001) at 10 years. The occurrence of fever during respiratory illnesses was an important marker of risk for wheeze and asthma later in childhood.

EDITOR’S COMMENTS And we were always under the impression that the fever is good for it shows that the body is capable of fighting aggressively against the intruder. The debate ‘fever-friend or foe’, thus continues!

Gaurav Gupta
drgaurav@charakclinics.com