CEREBRAL ISCHEMIC EVENTS WITH SICKLE CELL ANEMIA

Researchers at Cincinnati Children's Hospital and several additional centers in the US and UK studied the incidence of acute silent cerebral ischemic events (ASCIEs) in MRIs of children with asymptomatic sickle cell anemia (SCA). ASCIEs were detected in 1.3% of MRIs (10 of 771) in 652 children (mean age 10 years), with an incidence of 47.3 events per 100 patient-years. At follow-up MRIs in 2 of 10 children with ASCIEs, only 1 had silent cerebral infarction correlating with the location of a previously detected ASCIE. Children with SCA are at risk of frequent ongoing chronic, intermittent, cerebral ischemic events, sometimes reversible. (Quinn CT, McKinstry RC, Dowling MM, et al. Acute silent cerebral ischemic events in children with sickle cell anemia. **JAMA Neurol** 2013 Jan;70(1):58-65). (Response: Michael R DeBaun MD, Vanderbilt Meharry Center for Sickle Cell Disease Excellence, 220 Children's Way, Rm 11206 DOT, Nashville, TN 37232. E-mail: m.debaun@vanderbilt.edu).

COMMENT. The authors conclude that children with SCA experience clinically silent cerebral ischemia far more frequently than previously recognized. The brain in SCA is at constant threat of ischemic injury. The Nashville experience with neurologic injury in SCA finds that the specific morbidity includes a decrement in general intellectual abilities, poor academic achievement, progression in overt stroke, and new SC infarct despite regular blood transfusion therapy. (De Baun MR et al. **Blood** 2012 May 17;119(20):4587-96).

ISCHEMIC STROKE AND TIA IN YOUNG ADULTS

Researchers at the Massachusetts General Hospital, Boston, MA studied retrospectively the risk factors and yield of diagnostic tests, neuroimaging findings, and treatment of ischemic strokes in 215 consecutive young adult patients (aged 18 to 45 years) seen between 2005 and 2010. Hypertension was recorded in 20%, diabetes mellitus in 11%, dyslipidemia in 38%, and smoking in 34%. Cerebral angiography abnormalities were relevant in 67%, cardiac ultrasonography was abnormal in 50%, Holter monitoring in 1%, and hypercoagulable panel in 16%. Multiple infarcts observed in 31% were more prevalent in <35 year-olds. Arterial lesions occurred in the middle cerebral artery in 23%, internal carotid in 13%, and vertebrobasilar arteries 13%. Cardioembolic stroke occurred in 47%, including 17% with patent foramen ovale. Outcome was good in 81% at discharge. Of 29 patients receiving short-term thrombolysis, 55% had a good outcome at hospital discharge, and none had symptomatic brain hemorrhage. (Ji R, Schwamm LH, Pervez MA, Singhai AB. Ischemic stroke and transient ischemic attack in young adults. Risk factors, diagnostic yield, neuroimaging, and thrombolysis. **JAMA Neurol** 2013;70(1):51-57). (Response: Aneesh B Singhal MD, ACC-729C, Department of Neurology, Massachusetts General Hospital, Boston, MA 02114. E-mail: asinghal@partners.org).

COMMENT. Advances in thrombolysis are discussed in the 2012 Stroke Round-up (Kaste M. **Lancet Neurol** 2013 Jan;12(1):2-4). Based on the Safe Implementation of