Francisco, 350 Parnassus Avenue, Suite 908, San Francisco, CA 94117; E-mail: <u>ellen.mowry@ucsf.edu</u>).

COMMENT. Low vitamin D levels are associated with an increased relapse rate in pediatric-onset multiple sclerosis. Relapse rate in pediatric-onset is significantly higher than that in adult-onset cases (Gorman MP et al. Arch Neurol 2009;66:54-59). Mean age of the patients in the above study at time of blood collection was 15 years +/- SD3.

## VASCULAR DISORDERS

## ANTICOAGULANTS IN PEDIATRIC SINOVENOUS THROMBOSIS

Safety and outcome of anticoagulant therapy in neonates and children with cerebral sinovenous thrombosis (CSVT) were determined in a study at the Hospital for Sick Children and Toronto Western Hospital, Ontario, Canada. Neonates presented with seizures and encephalopathy, children had headache and raised intracranial pressure. Prothrombotic abnormalities occurred in 76%. Among 162 pediatric patients, 85 received anticogulants (standard/low molecular weight heparin, warfarin), including 29/83 (35%) neonates and 56/79 (71%) children. Mean interval from diagnosis to anticoagulant initiation was 4 days. Major hemorrhage occurred in 6% (6/99) of treated patients; they were all nonfatal and clinical outcome was favorable in 50%. Follow-up imaging showed thrombus propagation in 11/57 neonates (10/35 [28%] without and 1/22 [4%] with anticoagulant therapy (p=0.037)) and in 10/63 children (7/19 [37%] without and 3/44 [7%] with anticoagulant [p=0.006]). Propagation was associated with new venous infarcts in 10% neonates and 40% children and worse clinical outcome in children (p=0.053). Recanalization occurred earlier and more completely in neonates (p=0.002). Clinical outcome was unfavorable in 47%. (Moharir MD, Shroff M, Stephens D et al. Anticoagulants in pediatric sinovenous thrombosis: a safety and outcome study. Ann Neurol May 2010;67:590-599). (Respond: Dr G deVeber, Division of Neurology, the Hospital for Sick Children, 555 University Ave, Toronto, Ontario M5G 1X8 Canada, Email: Gabrielle.deveber@sickkids.ca).

COMMENT. In this large single-center cohort study of anticoagulant safety in pediatric CSVT, treatment-related hemorrhage was infrequent whereas in untreated patients, thrombus propagation was frequent, occurring in one-third patients. The authors conclude that anticoagulants deserve strong consideration in pediatric CSVT.

## TRIAL OF INSULIN FOR POSTSTROKE HYPERGLYCEMIA

The effect of glucose potassium insulin (GKI) infusion (compared to saline as control) within 24 hours of ischemic stroke was studied in patients (> 18 years old) with blood glucose >126mg/dl (7mmol/l) admitted to Southern General Hospital, Glasgow, Scotland. Infarct growth on MRI between baseline and day 7 was the primary endpoint. Brain lactate concentrations were measured with MR spectroscopy. Forty patients were randomized, 15 to saline and 25 to GKI infusions. From 6 to 12 hours after infusion.