

These included antithrombin deficiency, protein C deficiency, protein S deficiency, factor V, factor H, and combined thrombophilias. Thrombophilias are risk factors for first incident stroke. Outcome and recurrence risk of stroke need further investigation.

## **ANTITHROMBOTIC TREATMENT IN NEONATAL CEREBRAL SINOVENOUS THROMBOSIS**

Researchers involved with the International Pediatric Stroke Study enrolled 341 neonates with cerebral sinovenous thrombosis (CSVT) from 10 countries from 2003 through 2007. Neuroimaging findings, available in 67 of 84 term neonates with isolated CSVT, included venous ischemic infarction in 5, hemorrhagic infarction in 13, both infarction and hemorrhage in 26, and no parenchymal lesions in 23. Treatment data, available for 81/84 neonates, included antithrombotic medications in 52% (n=43) as follows: heparin (14), low molecular weight heparin (34), warfarin (1), and aspirin (2). Deep venous system thrombosis (P=0.05), and location in the US (P=0.001) predicted non-treatment with antithrombotic medications. Presence of infarction, hemorrhage, dehydration, systemic illness, and age did not predict treatment or non-treatment. On multivariate analysis, only geographic location was a significant predictor of treatment or non-treatment. (Jordan LC, Rafay MF, Smith SE, et al. Antithrombotic treatment in neonatal cerebral sinovenous thrombosis: Results of the International Pediatric Stroke Study. **J Pediatr** May 2010;156:704-710). (Reprints: Stephen Ashwal MD, Dept Pediatrics, Loma Linda University School of Medicine, 111785 Campus St, Loma Linda, CA 92350. E-mail: [sashwal@llu.edu](mailto:sashwal@llu.edu)).

COMMENT. Treatment of neonatal cerebral sinovenous thrombosis in international centers is variable and regional, and the indications and choice of antithrombotic medications are poorly defined. In an editorial, Massicotti MP et al. emphasize the importance of defining the “best” care for neonates with CSVT (**J Pediatr** 2010;156(5):695-696). The long-term outlook for neonatal CSVT is estimated to be severe, with disabilities up to 58% with developmental delay, 28% cerebral palsy, and 20% seizure disorders (Roach ES et al. **Stroke** 2008;39:2644-2691). The American Heart Association recommends antithrombotic therapy for neonates with severe thrombophilic disorders, multiple emboli, or propagating CSVT.

## **INFECTIOUS DISORDERS**

### **VACCINE-ASSOCIATED HERPES ZOSTER OPHTHALMICUS AND ENCEPHALITIS**

The case of an immunocompetent 3 and half-year-old girl who developed encephalitis and herpes zoster ophthalmicus 20 months after immunization with varicella-zoster virus vaccine is reported from Children’s Hospital, Athens, Greece, and University College, London, UK. She presented with herpetiform rash on the right half of her face, dizziness, vomiting, and somnolence. The rash followed the distribution of the ophthalmic branch of the trigeminal nerve and extended to the tip of the nose

(Hutchinson sign). EEG showed diffuse slowing. CSF had no white blood cells and normal protein and glucose. PCR was positive for VZV DNA in CSF. IV acyclovir and dexamethasone and local acyclovir treatments were followed by rapid complete recovery. Molecular analysis confirmed the vaccine strain as the causative agent. (Chouliaras G, Spoulou V, Quinlivan M, Breuer J, Theodoridou M. Vaccine-associated herpes zoster ophthalmicus and encephalitis in an immunocompetent child. **Pediatrics** April 2010;125:e969-e972). (Respond: Georgos Chouliaras MD, E-mail: [gchoul@med.uoa.gr](mailto:gchoul@med.uoa.gr)).

COMMENT. This case represents a rare example of herpes zoster occurring in an immunocompetent child and resulting from reactivation of the varicella vaccine virus received at immunization 20 months previously. An unusual source of vaccinia virus is reported as follows:

**Human vaccinia infection after contact with raccoon rabies vaccine bait.** Since 2003, US Department of Agriculture's Wildlife Services has instituted a multistate oral rabies vaccination (ORV) program using bait containing vaccinia rabies glycoprotein recombinant virus vaccine. Cases of human vaccinia virus infection are reported after contact with the bait, usually via dogs (or cats) that find and eat the bait. Owners are cautioned not to attempt removal of the bait from a dog's mouth. (Leggiadro RJ. **Pediatr Inf Dis Jnl** April 2010;29(4):203).

## **DISCORDANCE OF NEONATAL HERPES ENCEPHALITIS CLINICAL IMPROVEMENT AND DISEASE PROGRESSION**

Two cases of neonatal herpes encephalitis that showed an apparent uneventful recovery had concurrent severe, diffuse cerebral imaging abnormalities, in a report from Gillette Children's Specialty Healthcare, St Paul, and Children's Hospital, Minneapolis, MN. Despite prompt treatment with acyclovir and a favorable convalescence, imaging revealed severe diffuse cerebral infarction, discordant with the clinical findings. The prognosis was ultimately malignant. (Brenningstall GN, Patterson RJ. Convalescence disguising disease progression in neonatal herpes encephalitis. **Pediatr Neurol** April 2010;42:298-300). (Respond: E-mail: [gbrenningstall@gillettechildrens.com](mailto:gbrenningstall@gillettechildrens.com)).

COMMENT. The initial discordance of clinical response to acyclovir and brain imaging abnormalities indicates the need for serial CT or MRI during treatment of neonatal herpes encephalitis.

## **MUSCLE METABOLIC DISORDERS**

### **MITOCHONDRIAL ENCEPHALOCARDIO-MYOPATHY WITH NEONATAL HYPOTONIA AND TMEM70 MUTATION**

The course and metabolic profile of a novel mitochondrial disease with ATPase deficiency and mutation in the TMEM70 gene are described in a retrospective multisite survey of 25 patients (14 boys, 11 girls) from 7 European countries. The infants were