An Infant with Seizures, Rash, and Hepatosplenomegaly

(See pages 451–2 for the Photo Quiz)

Diagnosis: congenital syphilis.

The infant’s rapid plasma reagin test was reactive at a titer of 1:256 dilutions; a *Treponema pallidum* particle agglutination assay and fluorescent treponemal antibody absorption test were also reactive. A CSF sample that was obtained after the patient had received 4 days of antibiotics revealed a WBC count of 6 cells/mm³ (7% polymorphonuclear cells, 70% lymphocytes, and 23% monocytes and macrophages), an RBC count of 32 cells/mm³, a protein level of 0.43 g/L, and a glucose level of 2.2 mmol/L; a Venereal Disease Research Laboratory test was non-reactive. Long-bone radiographs and MRIs of the brain had normal findings. The patient was treated with penicillin G for 10 days. The rash (figures 1–3) had improved markedly at the time of hospital discharge, but the patient was still requiring supplemental nasogastric feeds because of a poor suck. A follow-up rapid plasma reagin test that was performed 3 months after initiation of therapy was reactive at a titer of 1:8 dilutions.

The mother reported a history of having a macular rash on her trunk, upper extremities, and the dorsum of her hands 1 month postpartum. During her child’s hospitalization, the mother had a rapid plasma reagin test that was reactive at 1:128 dilutions, as well as a reactive *T. pallidum* particle agglu-
Figure 3. Pemphigoid-like lesions with superficial desquamation, which sometimes follows rupturing of a bullae.

an elevated random serum cortisol level excluded this diagnosis, and the etiology of the hypoglycemia was presumably poor feeding. It is possible that our patient had hyponatremia caused by interstitial nephritis, but nephrotic syndrome is a much more common renal manifestation of congenital syphilis [4].

There has been a resurgence of syphilis in the province of Alberta, Canada, with 9 cases of congenital syphilis in 2005 and 2006 (including our case) after no cases during 1992–2002 [5]. Universal prenatal serologic screening for syphilis plays a crucial role in the prevention of vertical transmission of syphilis. As was demonstrated in this case, universal rescreening of all pregnant women in areas experiencing outbreaks of infectious syphilis is valuable, because women with no apparent risk factors can acquire syphilis during pregnancy. However, even if such rescreening occurs, the sensitivity of the rapid plasma reagin test is estimated to be only 62%–76% in early primary syphilis [6], and more sophisticated methods of screening, such as the EIA for syphilis, may be required to detect all cases [7].

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References


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