Image Congenital Dermoid Cysts of the Scalp

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San Francisco — Nearly half of congenital dermoid cysts on infant heads may have risky intracranial connections that link the outside world to the brain, said Dr. Brandie J. Metz. Tracts that expose the brain put a child “at higher risk for meningitis and abscess formation,” Dr. Metz said at a meeting sponsored by Skin Disease Education Foundation. Fortunately, dermoid cysts in the most common location—the lateral third of an eyebrow—have never been reported to contain intracranial connections.

Dermoid cysts also can occur on the midline nasal bridge, the scalp, the anterior or lateral neck, or postauricular areas, and many imaging to check for intracranial connections, said Dr. Metz, chief of pediatric dermatology at the University of California, Irvine.

Dermoid cysts in the nasal or midline scalp regions are more likely to have intracranial extensions. Dr. Metz recommended getting MRI exams of all congenital dermoid cysts on the scalp, especially if there’s an overlying hair collar sign (a coarse, dark hair surrounding the scalp nodule) or calvarial stenosis, or if the cyst is in an atypical location.

All midline dermoid cysts deserve imaging as well, especially if there are sinus pits or hairs projecting from the cyst, she said.
Most dermoid cysts appear at birth, and 70% are visible by age 5 years. They present as a tender, nontraumatic lump on the scalp, of which 26 had intracranial extensions. Forty-one (59%) of these lumps were determined to be dermoid cysts. Other causes of the lump included cephalohematoma, dermatoctoma deformans, eosinophilic granuloma, or occult meningocele or encephalocele.

The lumps that were determined to be dermoid cysts were the most likely to have intracranial extensions, in 15 of the 41 cases (37%). Most of the dermoid cysts with extension were on the posterior fontanelle or occipital scalp, “where we would have done preoperative imaging” to look for intracranial connections, Dr. Metz said.

In a 2005 study of 12 heterogeneous neurological subtypes of the scalp, 10 had a hair collar sign, 9 had cailpitate overlying the nodule, and 5 had calvarial defects in the bone that were identified with preoperative imaging. SDEF and this new organization are wholly owned subsidiaries of Elsevier.